REPORT

OF THE

ROYAL COMMISSION

Respecting the Coal Industry of the Province of Alberta

1935

Commissioner:

RT. HON. SIR MONTAGUE BARLOW, Bt., P.C., K.B.E., LL.D.

EDMONTON:
PRINTED BY A. SHNITKA, KING'S PRINTER
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The Commissioner throughout the enquiry received the skilled assistance of the following:

William Armour Esq., of the Mines Department of Great Britain, who acted as *Technical Adviser.*

R. Andrew Smith Esq., K.C., Legislative Counsel, who acted as *Counsel and Secretary.*

Andrew A. Millar Esq., Chief Inspector of Mines.

James C. Thompson Esq., C.A., Provincial Auditor; and representatives of his Department.

To His Honour the Lieutenant-Governor in Council.

I, the undersigned Commissioner, appointed by Your Honour by Commission bearing date the 13th day of September, 1935, beg leave to present my Report in pursuance of that Commission.

Montague Barlow.

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COMMISSION.

(GREAT SEAL)

(Sgd.) W. L. WALSH,
Lieutenant-Governor.

CANADA
PROVINCE OF ALBERTA

GEORGE THE FIFTH, by the Grace of God, of Great Britain, Ireland and the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India.

To all to whom these presents shall come, or whom the same may in any wise concern. GREETING.

WHEREAS provision has been made by an Order in Council dated the 13th day of September, 1935, for causing enquiry to be made into the coal industry in Alberta both in relation to the circumstances under which it is at present conducted and the possibilities of its future development, and, without restricting the generality of the foregoing, into the matters following:

1. (a) The cost of production, transportation, distribution and marketing of coal, and its by-products, and whether such costs or any of them are excessive, and if so, for what reason.
   (b) The capitalization, financial organization and cost of management of any person or persons (including any corporation or corporations) operating mines producing coal, and the excessiveness or otherwise thereof, and if so, as to the practicability of the revision or reduction of such capitalization, financial organization and cost of management in the best interests of the industry.

2. The wages and working conditions, living costs and conditions of housing and general welfare of mine workers in and about the mine.

3. The practicability of any scheme which will, in respect of coal, coke, or by-products:—
   (a) Increase demand.
   (b) Improve existing methods of marketing.
   (c) Establish standards of coal, together with adoption of a name or description of such coal.

4. The practicability of any schemes for better regulation of the industry in the future, including:—
   (a) Proposals for extension of markets.
   (b) Proposals for bringing production into relation to consumption.
   (c) Proposals having for their object the promotion of rationalization, co-ordination or amalgamation in the industry, or any portion of it.

AND WHEREAS it is deemed expedient to appoint The Right Honourable Sir Montague Barlow, Bt., P.C., K.B.E., LL.D., of London, England, as a Commissioner to conduct the said inquiry and report thereon to the Lieutenant-Governor in Council:

NOW KNOW YE that by and with the advice of Our Lieutenant-Governor in Council, We do by these presents nominate, constitute and appoint The Right Honourable Sir Montague Barlow, Bt., P.C., K.B.E., LL.D., of London, England, as a Commissioner to inquire into the matters aforesaid and to report to the Lieutenant-Governor in Council;

AND WE DO DECLARE the matters referred to Our said Commissioner to be matters of public concern, and under the authority of "An Act respecting Inquiries Concerning Public Matters" confer upon Our said Commissioner the power of summoning witnesses before him, and of requiring such witnesses to give evidence on oath, orally or in

writing, or on solemn affirmation (if they are persons entitled to affirm in civil matters), and to produce such documents and things as the said Commissioner may deem requisite to the full investigation of the matters into which he is appointed to inquire.

IN TESTIMONY WHEREOF We have caused these Our Letters to be made Patent and the Great Seal of Our Province to be hereunto affixed.

WITNESS: His Honour The Honourable William Legh Walsh, Lieutenant-Governor of Our Province at Our Government House, in Our City of Edmonton, this thirteenth day of September, in the year of Our Lord one thousand nine hundred and thirty-five and in the Twenty-sixth year of Our Reign.

BY COMMAND:

(Sgd.) ERNEST C. MANNING,

Provincial Secretary.

Report of the Royal Commission Respecting the Coal Industry in the Province of Alberta

RECOMMENDATIONS

ONTARIO MARKET.

1. That the Railway Companies, in connection with P.C. 740, and the Subvention, thereunder, be asked to give a friendly assurance, on the lines known as a gentleman's agreement, that the arrangements shall be continued say for five years; and further, that a reduction for the same period of 50c off the present charge of $8 should be conceded.

2. That the Dominion Government similarly be asked for an assurance that the $2.50 subvention be continued for 5 years; and with an increase of 50c for the same period to overcome temporary initial difficulties, the increase to be reconsidered at the end of the period, if a substantial increase in traffic has been by that time secured.

3. That in view of the benefits likely to accrue to the industry:—

(a) Steps should be taken by the Minister of Lands and Mines, after consultation with the operators, for determining the types of coal best suited for shipment to Ontario; and for the preparation of an official statement for that purpose.

(b) Steps should also be taken by the Minister of Lands and Mines, after consultation with the operators, to establish more uniform description of grades of coal and more uniform standards of size for each district.

(c) The Government should be prepared to contribute an additional annual sum up to $10,000.00 for publicity mainly in Ontario for the next 5 years; or until such time as a Coal Industry Welfare Fund is constituted, and is able to make contributions for the purpose of publicity.

(d) The Minister of Lands and Mines should take steps to assure himself of the acceptance of the above proposals by a substantial majority of the operators in the various districts are areas affected.

OPERATORS' ASSOCIATION.

4. That the Minister of Lands and Mines should, after consultation with the Advisory Committee proposed to be set up under transferred powers of Part III of The Department of Trade and Industry Act 1934 invite a conference of the operators in the Province with a view to constituting an Operators' Association for the Province, with separate branches for (a) Steam Coal and (b) Domestic Coal.

MINE RESCUE WORK.

5. That arrangements be made as soon as possible for the transfer of Mine Rescue Work from the Workmen's Compensation Board to the Mines Branch; and for a transfer of a proper proportion of the Board's levy to meet the charge now to be undertaken by the Government.

6. That steps be taken forthwith for the provision of proper permanent Rescue Stations at Blairmore and Drumheller, and for re-organization at Edmonton and Cadomin.

MINERS' CERTIFICATES.

7. That opportunity should be given to enable young men to gain experience by working at the coal face under an experienced miner; and that the Minister should consider with his Advisory Committee the best method of making provision accordingly.

MINING INDUSTRY WELFARE FUND.

8. That as and when conditions in the Coal Mining Industry improve, a Mining Industry Welfare Fund be constituted, by means of a levy on the payroll, calculated to produce the equivalent of 1c per ton of output: and to this the Government in virtue of royalties received should contribute an amount equivalent to an additional 50 per cent; the fund to be vested in and administered by a Board on which operators and miners are represented and be devoted as to two-thirds to welfare of the miners and one-third to research and publicity.

POWERS TO BE TRANSFERRED.

9. That the powers conferred on the Minister of Trade and Industry by The Department of Trade and Industry Act 1934, so far as Part III (and by reference Part II) is concerned should, for matters relating to the Coal Industry be transferred to the Minister of Lands and Mines.

10. That under the transferred powers the Minister should set up a permanent Advisory Committee.

CONTROL OF DEVELOPMENT.

11. That the Government should definitely announce a policy of refusal, save in exceptional circumstances, to grant new leases of undeveloped minerals in respect of Provincial lands for a definite period, say the next five years, the policy to be subject to reconsideration at the end of that period.

12. That the Minister of Lands and Mines should take steps to make arrangements with freeholders and leaseholders of undeveloped lands on the following lines:—

(a) That any obligation to commence active operations within a specified time, or to produce a specified quantity of coal, should during such period of 5 years be inoperative.

(b) That existing freeholders and leaseholders should during the same period of 5 years be granted remission of State charges, rentals, taxes, etc., either in whole or in part, provided that in consideration of this remission they are prepared to surrender during the period all rights of opening and developing new pits; provided further that if and when trade improves and the market requires an increased output, those freeholders and leaseholders who have accepted this arrangement should be given preference in applying for licence to commence new operations.

(c) These arrangements for restriction not to apply to lands already held by operators as a necessary part of existing mines, and *bona fide* required for development in the normal course of working during the next 5 years.

FORMULATION OF A CODE.

13. That the Minister of Lands and Mines should exercise his transferred powers under Parts II and III of The Department of Trade and Industry Act, and should invite operators, miners and distributors and others carrying on the coal trade in the Province to appoint representatives to confer with him for

the purpose of formulating a code of methods and practices applicable to the coal trade with the object of putting an end to competitive practices detrimental to the trade, to those engaged in it, and to the public.

FIXED PRICES—MINIMUM WAGE IN SMALL MINES.

14. That the Minister of Lands and Mines should take the necessary steps, under the transferred power of Parts II and III of The Department of Trade and Industry Act, by means of conferences with persons engaged in the domestic coal industry, or with the class of them affected, with a view to the establishment of:—

(a) Pithead prices in the domestic coal industry or portions of it.

(b) A minimum wage for those engaged in small mines.

(c) Any other regulations within the provisions of Part II and Part III of The Department of Trade and Industry Act considered after conference to be desirable.

QUOTAS—CENTRAL SELLING AGENCIES—AMALGAMATION.

15. That the Minister of Lands and Mines should, after conferring with his Advisory Committee, exercise his powers transferred under Sec. 26 of The Department of Trade and Industry Act 1934, to promote conferences with those engaged in the domestic coal industry and also those engaged in the business of the sale and distribution of such coal, for the following purposes:—

(a) The establishment of a rationalising scheme or schemes with a view to the regulation of output on a quota basis for the domestic mines in the Province and particularly in the Drumheller Valley; and also with a view to the limitation or adjustment of the output from the mines affected.

(b) The establishment of a central or common selling agency for the Drumheller Valley, and any other portion of the domestic coal industry where such an agency may prove to be desirable.

(c) The consideration of schemes of rationalisation or amalgamation of mines or undertakings in the domestic coal industry, with a view to securing that production may be obtained from those mines which are more capable of efficient and economical operation.

CHAPTER I.

INTRODUCTORY.

The Commission was constituted by Order in Council dated 13th September, 1935, made under the Public Inquiries Act, 1922, and a Commission was issued under the Great Seal of the Province accordingly. Sittings for the reception of evidence were held as follows:—

At Edmonton on the 17th and 19th September, 1935, and on the 15th, 16th and 17th October, 1935;
At Drumheller on the 24th, 25th, 26th, 27th and 28th September, 1935;
At Lethbridge on the 30th September and the 1st and 2nd October, 1935;
At Blairmore on the 3rd, 4th and 5th October, 1935;
At Calgary on the 7th, 8th and 9th October, 1935;
At Cadomin on the 22nd and 23rd October, 1935;
At Coalspur on the 25th October, 1935;
At Brazeau on the 29th October, 1935;
At Saunders Creek on the 30th October, 1935.

The following Counsel appeared before the Commissioner and submitted briefs on behalf of their clients:—

Mr. Mayne Reid, K.C., at Edmonton, on behalf of a group of Edmonton operators;
Mr. D. G. Mackenzie, K.C., at Blairmore, for the principal steam coal operators.
Mr. H. R. Milner, K.C., at Edmonton, presented the case for the Northwestern Utilities Ltd. as President of the Company, and not as Counsel.

A verbatim shorthand note was taken of the proceedings at all the public sittings of the Commission, and a transcript thereof is filed for reference, together with memoranda of evidence and other documents received in the course of the enquiry, at the office of the Department of Lands and Mines, Mines Branch.

Two Questionnaires, to be answered respectively by operators and miners, were prepared and circulated: the Questionnaires and answers thereto are filed with the other documents.

Information was also supplied and memoranda submitted to the Commission by or on behalf of others interested in the coal industry.

The Operators' Questionnaire was sent to all persons known to be operating coal mines in the Province, and replies have been received from operators whose aggregate production represents approximately two-thirds of the entire coal production of the Province. The Workmen's Questionnaire was answered fully by the United Mine Workers of America, District No. 18, by the Mine Workers Union of Canada, and by a number of local organisations of miners.

The Commission has made free use of the statistics issued by the authority of the Government of Canada, the Government of the Province, and by Departments and officials of both Governments.

Numerous mines operating in the various coal mining centres have been inspected in the course of the enquiry, and in this work of inspection the Commissioner has had the benefit of the able assistance of Mr. William Armour, the Technical Adviser to the Commission. The Commissioner also, in the chief coal mining centres, most of which were visited, made personal examination of the provision made for the health and welfare of the mining community, including housing, sanitation, water supply, pithead baths, etc.

Previous enquiries have been held into the condition of the Coal Industry in Alberta—in 1919, over which Mr. J. T. Stirling presided; and more recently in 1925, by a Commission which consisted of the following Commissioners:—

Mr. H. M. E. Evans, Chairman,
Mr. R. G. Drinnan,
Mr. F. Wheatley.

The Commission of 1925, usually known by the name of its Chairman as the Evans Commission, was appointed on 1st December 1924 and reported on 15th February 1926, and its enquiry extended over more than a year. The Commissioners, who were all men of experience, devoted much time and thought to the investigation, and collected with patience and accuracy information covering every branch of the coal industry in Alberta. In the present case expedition was desirable, and time did not permit of an enquiry so prolonged as in the case of the 1925 Commission: it was also unfortunate that owing to special circumstances, preparation for the work of the Commission, by the collection of any memoranda or data beforehand, had not proved feasible; it was possible, however, to save valuable time by making use, for the period prior to 1925, of much of the material collected by the Evans Commission.

Changes have taken place since 1925 materially affecting the coal industry in the Province; to mention only three, in 1930 the Province took over from the Dominion the natural resources within the Province, which thereupon became vested in the Province in right of the Crown: the coal industry, which about 1928 had reached its maximum expansion, began to suffer like the rest of the world from serious industrial depression: and lastly between the years 1928 and 1932 the policy of subventions with a view to assisting the transportation of coal from the West into Central Canada to compete with American anthracite was launched.

So far as possible, the tables and statistics collected in the Evans Report have been made use of and where necessary brought up to date in this Report, but the changes which have taken place in the last 10 years and the difficulties which have developed in the coal industry in Alberta during that period, have raised new issues and brought to a head problems different in character and urgency from those which were under consideration 10 years ago.

The two principal problems to-day before the coal industry in Alberta which emerge forcibly from the present investigation are, first, MARKETING; as indicated by many witnesses, Alberta is rich in resources of easily mined coal—coal for which, especially under present conditions, it is difficult to find adequate markets; this is an urgent problem, and demands the immediate attention of the Government and of the industry: secondly, REGULATION; evidence disclosed serious complaints of unsatisfactory and even chaotic conditions in the Alberta coal industry or some portions of it, due to excessive competition, price cutting, unfair practices, and so on. As outlined below in Chapter VII, similar crises due to unrestricted competition, unfair practices, wage cutting, etc., coupled usually but not always with diminshed markets, have arisen in the coal industries of Germany, Great Britain and the United States, and also in the neighbouring Province of Saskatchewan, and in all these cases efforts have been made to find a remedy in better methods of Regulation. Experiments along the same lines have also been, or are now being made voluntarily in Alberta in the coal industry itself, and these are fully examined in Chapter VII.

Happily, there were no broad and contentious issues disclosed by the evidence in the relations of capital and labour, but there were certain problems of more

limited application which the enquiry has revealed, relating mainly to the welfare and social conditions of labour, such as Workmen's Compensation, Mine Rescue Work, Housing, conditions in Closed Camps, and so on, which also, as in the case of the marketing problem above indicated, can and should be dealt with without delay.

This Report accordingly, while covering the issues indicated in the Royal Commission, is concerned mainly with Marketing, Regulation, and Social problems of restricted application as above indicated.

These difficulties of Marketing and the Social problems of more limited application constitute the immediate, or short-term, programme. The policy of Regulation as applicable to the coal industry requires full and careful consideration, so that development may proceed gradually and to such an extent as circumstances may require; it cannot, like the short term programme, all be handled at an early date.

With regard to statistical tables and the sequence of matters dealt with, the order of the Evans enquiry has generally been followed in this Report.

Finally, thanks are due to all who have cordially, and often at the cost of considerable time and labour, given their assistance in the course of the enquiry. It is impossible to name all those who have co-operated in this way, but I should like to express my personal thanks to various Departments and officials of the Government who have at all times been most willing to supply statistical and other information: and to the representatives of the operators and miners who have throughout shown their readiness to come forward and assist.

The U.S. Secretary of Labour, Miss Perkins, at Washington, and the Director of the International Labour Office, Mr. H. B. Butler, at Geneva, and the staffs of their respective Departments, were good enough to answer queries and furnish important printed matter.

I wish specially to mention the admirable and skilled service which has been rendered by Mr. William Armour, the Technical Adviser to the Commission; he acted in a similar capacity to the two enquiries into Nova Scotia coal successfully conducted by Sir Andrew Duncan, and his expert knowledge and unflagging interest have been of great help.

Mr. R. Andrew Smith, K.C., Legislative Counsel, acted as Secretary and Counsel to the Commission: his knowledge of the legal aspects of the problem, and his ready willingness to collect evidence and adjust all difficulties connected with the Commission, deserve my best thanks.

The Trade Commissioner, Mr. Howard Stutchbury, and his Assistant in Toronto, Mr. Clarry, have supplied much information of an important character, of which full use has been made.

Mr. Andrew A. Millar, the Chief Inspector of Mines, has placed his technical knowledge and tried experience at the disposal of the enquiry throughout, and his help has proved invaluable.

Lastly, the Provincial Auditor, Mr. James C. Thompson, and his assistant, Mr. K. Huckvale, have devoted much time to careful consideration and analysis of the tables and statistics appearing in this Report; and Mr. Thompson's experience has been of great service.

The Report is signed and presented on my leaving Canada: the reading and correction of the proofs has kindly been undertaken by the King's Printer.

MONTAGUE BARLOW.

Ottawa, December, 1935.

CHAPTER II.

RESOURCES AND DEVELOPMENT.

1. Coal Resources and Ownership.

It is not necessary for the purpose of this enquiry to consider with any detail the geology of Alberta coal: that was fully dealt with and the three geological horizons of Kootenay, Belly River and Edmonton explained, in the Evans Report. It is, however, important to consider the estimated coal resources of Alberta.

In the past there has been a tendency seriously to exaggerate these resources; in *Coal Resources of the World*, published in 1913, the following figures were given:—

	Millions of tons.	
	Alberta.	Alberta Percentage of Canada.
Anthracite coal	768	35.59%
Bituminous coal	198,092	69.83%
Sub-bituminous and lignite coal	876,179	92.38%
Total all coals	1,075,039	87.10%

This estimate for Alberta proceeded on the assumption that there were in all something over 80,000 sq. miles underlain by coal; but since that time much work has been done on the geology of coal in Alberta, and the irregularity of the seams has caused doubts to be thrown upon the figures as given in *Coal Resources of the World.*

In evidence before the Evans Commission, Dr. John A. Allan, who is Professor of Geology at the University of Alberta, gave an area of 12,000 sq. miles as the total area which expert knowledge was then inclined to admit as underlain by coal. The Report found that, on the definition of seams of 1 ft. and over to a depth of 4,000 ft., the then state of knowledge required a reduction of the Alberta estimates to at most one fifth of the 1913 calculation.

Dr. Allan gave evidence before the present Commission, and submitted a careful memorandum giving reasons for thinking that the total available coal, which was given in the Evans Report as 2,488 sq. miles and 57,512,320,000 tons, should be again further reduced: and on the basis of a 3 ft. seam or more, which Dr. Allan now adopts, should be estimated at 1,717 sq. miles, or approximately a million acres, and 40,200,000,000 tons. Even so, it must be understood that all the coal so indicated is not minable and that the amount recoverable by mining might, in his view, be placed at not more than 50% of the totals given, or some 20,000,000,000 tons in all.

The Evans Report proceeded to give the proportions held under Governmental and other control, both in the form of total figures and also in percentages. For the reasons just given, the totals clearly can no longer be accepted; the percentages, however, are stated by the Mines Branch to be still substantially accurate, and are as follows:—

	Operating Companies. % tons	Alberta Govern-ment. % tons	C.P.R. and H.B. Co. % tons	Others % tons
Bituminous	16	64	1	19
Sub-Bituminous	10	63	6	21
Lignite	11	45	20	24
Total	14	60	5	21

Control as indicated in this table includes not only ownership in fee simple, but leaseholdings. The various forms of tenure of coal rights are:—

Freehold without royalty;
Freehold with royalty of 7c per ton;
Leasehold from the Crown in the right either of the Dominion or of the Province with a royalty of 5c per ton and an annual rental of $1.00 an acre.
Leasehold from an owner other than the Alberta Government in which case the terms of rental and royalty vary.

The Evans Report, p. 55, gave the following figures of the acreages held under the various forms of tenure, based on the returns from the 89.9% of mines then reporting:—

	Total for Province, Acres.
Freehold without royalty	35,942
Freehold with royalty at 7c per ton	40,560
Leasehold with royalty at 5c per ton and annual rent of $1.00 an acre	92,543
Leasehold from owner other than the Provincial Government	9,147
Any other form of tenure	1,618

The Mines Branch state that there is no reason to think that these figures have substantially altered since 1925; and they become of importance when the question of Governmental control over the opening of new mines is discussed in Chapter VII below.

2. Mining Development and Output.

As frequently indicated in the course of this Report, it is the prodigality of nature and the very richness of the resources of Alberta coal, coupled with restricted markets, that must be looked to as the origin of many, if not, most, of the difficulties of the industry to-day. In this connection, it is of interest to note that while mines are continually being abandoned, presumably on the ground that they are not paying propositions, or are worked out, others, even in recent years of industrial depression, are continually starting operations. In 1924, the last year given in the Evans Report, 60 mines had been opened and 87 abandoned, and the total number of mines in operation in the year was given as 399, while the figure of the total invested in abandoned mines was suggested as over 11 million dollars. In the year 1934, the number of mines opened or re-opened during the year was 26; the mines closed, or closed and abandoned, amounted to 69, and the total number of operating mines during the year was 276.*

Estimated Capacity of Present Alberta Mines.

In the Questionnaire to the operators, they were asked to state what they estimated to be the output capacity of their mines, but the returns received are by no means complete, and it is not possible from the figures so given to obtain anything like a full estimate of what the yearly output capacity is.

**Mines Branch Report,* 1934, p. 94.

In *Coal Statistics for Canada,* for 1934, the output for Alberta mines is given as 4,753,810 tons, and it is stated that this is 62% of their possible output, which on this basis would approach 7¾ million tons per year: but this is probably too contracted a figure.

The following estimate has been submitted by the Mines Branch, based on the development of the mines at the present time and the capacity of the plants: the output given is calculated on a basis of 275 days for the bituminous and 150 days operation for the sub-bituminous and lignite mines, and on the supposition that there is no increase of plant or other development.

This estimate would approximate 10¼ million tons, and is made up as follows:—

	Tons.
Bituminous and sub-bituminous mines producing for Railways and steam users	5,000,000
Sub-bituminous for domestic	500,000
Lignite for domestic	4,736,000
	10,236,000

Output.

The figures of output and value from 1886 to 1924 were given at length in the Evans Report and can be referred to there. It is however of importance to set out the figures since that date, as they indicate the serious contraction that has taken place in the industry since the peak year of 1928:—

Year.	Short tons.	Value.
1925	5,869,031	$20,021,484
1926	6,503,705	20,886,103
1927	6,934,162	21,982,058
1928	7,336,330	23,532,414
1929	7,150,693	22,928,182
1930	5,755,528	18,063,225
1931	4,564,015	13,342,675
1932	4,870,648	13,526,309
1933	4,718,788	12,307,258
1934	4,748,848	12,440,616

The Mines Branch has also furnished the following statement, showing statistically changes in the industry since 1925:—

Total tonnages sold for consumption in 1925, 1928, 1934.

	1925		1928		1934	
		% of total sales.		% of total sales.		sales. % of total
Alberta	1,440,032	25.84	1,409,475	20.31	1,087,898	25.0
B.C.	117,037	2.1	262,198	3.78	127,638	2.93
Saskatchewan	1,297,653	23.28	1,511,141	21.78	986,639	22.68
Manitoba	509,655	9.12	605,125	8.72	391,132	8.99
Ontario	28,831	0.53	44,265	0.64	55,947	1.28
U.S.A.	40,507	0.73	52,265	0.75	13,739	0.32
Railways	2,139,716	38.40	3,054,239	44.02	1,687,850	38.79
Total	5,573,431		6,938,708		4,350,874	

Alberta therefore sold 2,587,834 tons less in 1934 than in 1928.

The loss is accounted for approximately as follows:—Railways, 1,366,389 tons; Alberta, 321,580 tons; B.C., 134,560 tons; Saskatchewan, 524,502 tons; Manitoba, 213,993 tons; U.S.A., 38,526 tons. The railways are the largest and most important individual purchasers of Alberta coal, but the contraction in sales has been fairly uniform in respect of all classes of consumers.

The output of Alberta coal since 1925 according to character of coal, has, in accordance with figures furnished by the Mines Branch, been as follows:—

Year.	Domestic.	Sub-bituminous.	Bituminous.
1926	3,160,029	490,371	2,858,508
1927	3,357,171	595,190	2,984,419
1928	3,378,200	740,498	3,215,481
1929	3,385,749	668,108	3,093,393
1930	2,874,090	603,331	2,278,490
1931	2,246,544	471,389	1,846,357
1932	2,576,831	559,479	1,733,720
1933	2,434,047	554,141	1,726,596
1934	2,295,566	537,542	1,915,740

Comparing the production from the domestic areas in 1925 with that of 1934, perhaps the most noticeable feature is the decline in the Lethbridge field, where in 1925, 669,119 tons were produced, and in 1934 only 312,677 tons. In the Taber area production has fallen from 82,998 tons in 1925 to 16,549 tons in 1934. In the Edmonton area the tonnage has been fairly steady with:—1925, 558,710 tons,—1927, 513,256 tons,—1934, 452,019 tons.

Important developments since 1925 are the opening of a number of new mines in the East Coulee and Willow Creek districts of the Drumheller field, and two new mines west of Edson on the main line of the Canadian National Railways: and more recently, the initiation of large scale strip mining or open pit operations in the Sheerness area.

In 1932 a development of considerable importance took place; the manufacture of coke was resumed in the Crow's Nest Pass after the lapse of many years, the bulk of the output being taken by the smelter at Trail, B.C. The figures of coke produced were:—

1932— 2,183 tons.
1933—49,279 tons.
1934—59,703 tons.

3. Coal Utilization.

Electrical Development.

Electrical development in the Province of Alberta was considered fully in the Report of the Hydro-electric Power Commission of Ontario in 1924; and other investigations have since been held from time to time, e.g., into the Spray River power project in 1925, and into the Edmonton power situation in 1929. It is not necessary for the purpose of this Report to consider these investigations at length.

The water resources of the Province are admittedly nothing like as extensive as those, for instance, of British Columbia. The Evans Report drew attention to the great development in recent years of production of electrical energy by placing large central steam stations at or near a good coal supply, and utilising the power so obtained for the whole of a large consuming area. Such developments have taken place in the Tyneside area of Great Britain, and elsewhere. Where power is produced in this way under economic conditions with a good supply of coal and a market in close proximity, so as to avoid heavy transmission costs, steam power can compete with hydro-electric generation. Generally speaking, it can be said that the initial cost of a hydro-electric plant is very considerably in excess of that of a steam plant; on the other hand, the operating costs of a steam plant are considerably higher. When depreciation and interest is taken into consideration, there is not much to choose in the matter of cost.

It is unfortunate that opportunities for development of electricity by steam power rather than by water power seem to have been neglected by those responsible for the coal industry in Alberta. Evidence was given that the Calgary Hydro-Electric power installation has been active in extending its organisation in various parts of the Province and in buying up and closing small town and city steam power plants in order to be able to dispose of its large available supplies of hydro-electric power. Even power plants such as that at Edmonton have found themselves dependent on the Calgary plant, especially for the purpose of taking secondary supply in the summer months.

In view of the restriction of water resources owing to frost during the winter, the supply of power from coal should have been able to command more of the field than is the case.

It is probably undesirable in the public interest that a monopoly of electric power supply should pass entirely into the hands of one privately owned undertaking, and it should not be too late for the coal operators themselves to examine whether it is not possible for them even now to consider the pooling of resources with a view to a joint electric supply. This might not be immediately profitable, but when trade improves should be able to secure for the mining industry, and also as far as may be necessary for the public, an economic alternative supply of power.

Evidence was tendered by a leading mine operator that if such a scheme could be worked out co-operatively by the industry, it would, as opportunity developed, result in a saving of 5c to 10c per ton on the cost of coal produced.

Carbonisation.

There is no new development in either high or low temperature carbonisation of any moment since the Evans Report of 1925.

With regard to low temperature carbonisation, Professor Edgar Stansfield, of the Research Council of Alberta, has submitted information to the Commission on the following lines:—

Low temperature carbonisation produces a smokeless solid fuel, fuel oil, and gas. Alberta has an abundant supply of cheap, smokeless coal well distributed through the Province. Great Britain, France, Germany, etc., have introduced L.T.C. on account of their great lack of petroleum. Alberta has some petroleum, large reserves of bituminous sands, and is close to large petroleum supplies in the United States. Alberta is also squandering a high grade natural gas for lack of a market. It is therefore difficult to see any economic favourability for L.T.C. in Alberta, for a local market, except the present of large reserves of many varieties of coal. The situation for the Ontario market is slightly more hopeful. There is there a large market for a smokeless domestic fuel. Alberta produces a smokeless domestic fuel, but this does not have a high heat value so that the freight rate per therm (100,000 B.T.U.) is high. If this coal could be up-graded by L.T.C. to form a high heat value, smokeless, storable fuel, it might be possible to keep mines and carbonizers working steadily throughout the year to supply the Ontario winter market. Unfortunately neither the coke produced from coking coals, nor the char produced from non-coking coals would suit the market, and the freight rate per ton would be higher than for coals. Briquetting might solve the difficulty, but it must be admitted that briquetting is an expensive operation and that no satisfactory, cheap, smokeless and weatherproof binder has yet been found. If advantage is to be taken of up-grading to reduce freight costs, the car-

bonisation must be carried out in Alberta and local markets found for the tar oils and surplus gas, if any. There is not, however, a good outlook for such markets, and it is not reasonable to count on any higher price for these oils than the price obtainable for them as fuel oils.

Many hundreds of L.T.C. processes have been invented, and quite a large number have been developed to the stage of large scale operation by experienced and competent engineers. Proved processes, suitable for every type of Alberta coal, are thus available.

The outlook for L.T.C. in Alberta will materially improve if, and when, a cheap process is developed for converting the char into a dense, coherent, smokeless fuel. It would also be improved if a plant for the hydrogenation of coal were established. Such a plant could make gasoline from tars of all varieties more easily than from coal, so that a good market for the tar would be ensured. Improved markets for L.T. tars will certainly come in the future, as they came for H.T. tars; but such improvement cannot be counted upon in the early stages of the industry.

Briquetting has been referred to as a costly process. The Mines Branch at Ottawa has estimated that in the United States the binder would average $1.13 per ton of briquette, assuming 7½% of binder at $15.00 per ton, and the total cost of operation at an average of $1.45 per ton of briquette. That is a total cost of $2.58, exclusive of the cost of coal. The percentage of binder required varies widely with the coal, but it would not be safe to assume any lower cost than above for Alberta conditions without making detailed estimates based on actual tests.

Non-coking, high rank, low volatile coals have been and are being briquetted in Alberta at Bankhead and Canmore. The fines of such coals are difficult to market without treatment and additional briquetting plants are therefore possible in this field. Coking, high rank coals can be burned, comparatively readily, without briquetting, even when there is a high percentage of fines, so that there is less prospect of development in this field; on the other hand such coals can be briquetted with notably less binder.

Hydrogenation.

Dr. E. H. Boomer, Professor of the Department of Chemistry in the University of Alberta, gave evidence before the Commission and also submitted a memorandum on the subject.

One of the principal elements in hydrogenation is a supply of cheap hydrogen, and in view of the resources of natural gas available in the Province, it seemed possible that Alberta might enjoy special advantages with regard to hydrogenation at reasonably cheap rates.

The investigations, however, so far do not seem to bear this out. Dr. Boomer has considered the matter with care, and the results of his researches are shortly as follows:—

As part of an investigation of the utilisation of natural gas in Alberta, an examination of the susceptibility of Alberta coals to destructive hydrogenation was carried out. The primary requirements of a process for the production of oils from coal are three in number, namely, cheap coal, suitable coal, and cheap hydrogen. These are all satisfied in Alberta to a degree comparable with any part of the world; it is clear that some Alberta coals are suitable for use in the process,

The process of destructive hydrogenation for the production of oils from coals is the most advantageous method at present. It is undoubtedly superior to low or high temperature carbonisation processes. However, as an economic proposition, the process shows no promise on the data so far available. The only cost figures available have been released by Imperial Chemical Industries. These showed that gasoline from coal could be produced, in England at least, only if a measure of protection was given the process by duties on imported petroleum. These figures applied in 1932, and will not have changed substantially in the last three years.

Conditions in Alberta are favourable in some respects. It is likely that hydrogen can be produced for as little as 15c per thousand feet under favourable conditions here, and possibly coal is cheaper. On the other hand, the plant would have to be smaller than that employed in Great Britain and the unit cost would be greater as a consequence. Further, the cost of a plant imported to Alberta would be higher than one in England. The 7c for all other charges given for an English plant would be increased substantially for a plant here, possibly more than would be balanced by cheaper raw materials.

At present, the only hope for the successful operation of the process in Alberta lies in technological improvements or in a method of bonusing production.

Quite recently, a report has appeared,* published by Imperial Chemical Industries Ltd., with regard to their experimental works at Billingham. From this it is clear that after 8 years of continuous research work and the expenditure of some four millions sterling, I.C.I. are now producing petrol from coal on a commercial basis at Billingham, and their big hydrogenation plant is at last in full activity. Billingham is already producing 4 out of every 100 gallons of petrol consumed in Great Britain. This is still a day of small things, but the new industry and the results already achieved by it are certainly a hopeful feature for the depressed coal areas of Great Britain. The further progress of the industry at Billingham will be watched with close attention in Alberta.

It must, of course, be borne in mind that the British Government, in the interests of security and to avoid being dependent on foreign supplies, has guaranteed to I.C.I. a substantial preference for the petrol they produce. This pledging of public resources in order to give security for the supply of a commodity necessary for national safety is in many ways analagous to the policy of subventions paid in recent years by the Dominion Government to secure Canadian coal for Canadian consumption.

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*Weekly *Times,* 24th October, 1935.

CHAPTER III.

OPERATING CONDITIONS AND PRACTICE.

1. Equipment.

Mr. W. Armour, the Technical Adviser to the Commission, prepared the following report on the general equipment of the coal industry in the Province:—

First of all, it is to be noted that the standard of technical skill available for the coal industry in the Province is high, and the training, experience and resource of the responsible officials appear quite adequate to the peculiar, and often arduous, conditions prevailing in the Province, and particularly in the steam coal areas.

The machinery employed, whether it be boilers, hoists, haluage gear, pumps, fans or electric generators and coal cutting plant, is frequently of British make, and by reputable firms, and seems well up to its burden and equal to the hard conditions imposed by the industry and the variations and extremes of the Canadian climate.

There is, however, matter for criticism in the lack of care and order exhibited in certain places as to the housing and general upkeep of surface plant, a tendency which must have a depressing effect on the men associated with the plant and, in any case, is a wasteful policy in the long run. This defect is most manifest in the domestic areas where, with one or two notable exceptions, the surface plant and equipment appear somewhat temporary and tawdry, although in all cases equal to their work.

The underground equipment in that area, however, is good and handled with considerable skill.

Since the Evans enquiry, there has been a substantial increase in the number of coal cutting machines, both air and electric, operating in these mines. The comparative figures are as follows:—

	Electric.			Comp. Air			All Machines.
Year.	No.	Tons.	%	No.	Tons.	%	% of output.
1924	78	1,426,824	27.4	195	687,347	13.2	40.6
1934	137	1,531,258	32.2	305	479,038	10.0	44.0

While it is obvious from these details that the percentage total tonnage handled by these mechanical aids has increased only very slightly, the heavy decline, due to general industrial depression, in the output from the domestic mines (where the long wall machines are in use) in 1934 compared with 1924 has disturbed the potential effect of this form of plant.

Owing to the heavy inclination of the strata encountered in the steam coal areas, long wall machines are neither applicable nor necessary; the seams are thick and friable and all that has been attempted is the use of small compressed air picks. There is one exception to this at Mountain Park, where owing to a harder coal and a fortuitous flattening of the pitch, the management have applied the long wall cutter in the 4 ft. seam, and apparently with successful results. At the Sterco Strip pit visited, which is in a category by itself, there is the mechanical steam shovel in use.

To a British observer, the output efficiency, whether expressed in terms of manshift worked or men employed, looks high. The Alberta Mines Branch Report for 1934, at p. 61, sets this information out as under:—

Tons of coal per man employed.

	Domestic.	Sub-bituminous.	Bituminous.	Strip pits.
1932	566	430	660	1,868
1933	543	474	600	1,820
1934	535	489	653	1,912

When compared with the British figure of 288 tons (long) per annum, the standard of effort looks satisfactory, but on the other hand it is below that attained from the generally much more easily worked mines in the U.S.A.

When stated in terms per manshift worked and as estimated from the data available in the Operators' Questionnaires, the position is as under:—

	Alberta—tons.				U.S.A.	Gt. Britain
	Steam.	Sub-bit.	Domestic.	Total.	tons.	long tons.
1924	3.03	3.72	3.03	3.07	4.19	.88
1934	3.27	3.36	3.70	3.40	4.50	1.15

Having regard to all the prevailing circumstances and the relatively short time worked in most places, these results appear to be as good as can be expected. The Cadomin property is the most fortunately situated in this respect, chiefly the result of local conditions and almost full time operation.

The cleaning of these steam coals, which has been a problem of increasing importance within the last 10 years, presses more heavily to-day. The dry cleaners in use at several of the steam coal properties have been a considerable help, but apparently do not quite meet the needs of to-day. Meantime, two important experiments are being carried out:—

(a) Dry cleaner at Luscar, started in February 1935;

(b) Wet washer (and dryer) at Coleman started in 1935;

both of which have made a substantial contribution to a solution of the problem.

Electrical power was in use in 1934 at 73 mines, in plant with a total capacity of 34,156 H.P.,* or equal to approximately 4 H.P. per man employed, which compares favourably with the 2.6 H.P. in Britain.

It is rather surprising to see the extent to which the energy is drawn from the Calgary Power line, both in Edmonton and Lethbridge, where the local coal industry seems to have missed an opportunity for using up the "smalls" available in their operations, or for making some joint effort with the hydro-electric undertakings to handle the electrical supply needs of a Province in which the water resources are limited, and subject to wide fluctuation. A similar state of affairs is obvious at Blairmore, where a joint effort among the coal-mines could have secured a cheap supply from a steam station using fine coal supplemented by waste gas from a modern bench of coke ovens, if set up at McGillivray Creek or the International.

This electrical energy is applied to a variety of purposes, but chiefly:—

Hoisting and winding;
Ventilation;
Pumping;
Haulage;
Coal cutting;
Cleaning and washing;
Air compressors;

and the equipment in use for these purposes is good and well maintained. The

*Alberta Mines Branch Report, 1934, p. 78.

haulage plant is generally very substantial, the ordinary rope haulage being in several places supplemented with either battery locos or similar shunting engines driven by compressed air stored at 800 lbs. per sq. in.

In conclusion, so far as the steam coal undertakings are concerned there is, with one exception, little to criticise regarding the equipment, structures and general arrangements at these mines: indeed, several of these properties are marked by a very high standard of excellence. It is in the domestic region, however, that an appearance of tawdry impermanence is encountered: such an appearance, while inevitable in the pioneer stages of the industry, is out of place in properties the past history of which, together with the potential resources still available, appear to justify more orderly and substantial arrangements.

2. Mining Practice.

The Mines Branch furnish the following information with regard to mining practice, indicating some changes since 1925: the average number of persons employed since 1925 each year to 1934 inclusive at the mines is as follows:—

	Above ground.	Below ground.	Total.
1925	2,276	6,498	8,774
1926	2,194	6,569	8,763
1927	2,335	6,681	9,016
1928	2,871	6,625	9,496
1929	2,457	7,115	9,572
1930	2,282	6,607	8,889
1931	2,101	5,969	8,070
1932	2,066	5,772	7,837
1933	2,105	5,937	8,042
1934	2,054	5,089	7,143

The ratio over the period is 1 person above ground to 2.77 underground: this, however, includes employees in strip pits who are classed as above ground workers; deducing the strip pit employees entirely, the ratio of above ground to underground workers is 1 to 3.29.

The number of days on which coal is being hoisted or drawn is being reduced; in 1925 the average hoisting at the domestic mines was 183.42 days, in 1934, 153.33 days; in the sub-bituminous mines the average was 199.42, as compared with 161.59, and in the bituminous mines, 191.29 in 1925 as compared with 164.51 in 1934. The average of all mines was 191.29 hoisting days in 1925, but only 159.81 days in 1934.

CHAPTER IV.

CAPITALISATION—PROFITS OR LOSSES—MANAGEMENT COSTS.

The Questionnaires circulated to the operators have received from the large majority of those communicated with, with prompt consideration and response. As already stated, the replies represent approximately 66 per cent of the entire coal production of the Province.

These replies have been carefully analysed and collated in the Department of the Provincial Auditor, who has furnished the following Report:—

The questionnaires submitted by the operators called for information for the years 1932 to 1934 inclusive. The operators have submitted their operating results as for the fiscal years, which differ in different mines, and the tables show the information as for the fiscal years ended during 1932-3, 1933-4, 1934-5. The information required respecting tonnage was, however, in a number of instances given for calendar years, and in such cases in order to arrive at costs per ton, the tonnage figures for fiscal years were obtained from the Mines Branch.

In a number of cases insufficient information as to operating results was supplied by operators, and in these cases the deficiencies were, so far as possible, supplied from official sources.

In a number of cases, particularly among domestic operators, the colliery consumption of coal was not used in showing the results of operations, and this item was therefore disregarded in all cases of domestic or sub-bituminous mines.

Some operators have made no provision for depreciation or depletion in their accounts, and in such cases use was made of rates prevailing in other mines in the same field.

No figure of interest on capital invested was taken into consideration, as from the information available it was impossible in most cases to arrive at a true capital value of the various mines.

An attempt was made to eliminate all extraneous items of revenue and expenditure from the operating accounts, interest received on investments of a permanent nature, and interest paid on capital borrowings being the most important of these items.

The information supplied in, and the figures and tables compiled from, the operators' Questionnaires are of importance and give interesting information as to the present state of the industry in many directions; but it is clear from the Report of the Provincial Auditor that they are in many respects only approximately complete and must be so considered. The Evans Report, p. 92, also indicated that for certain purposes the figures then supplied by the operators were incomplete.

1. Capitalisation.

With regard to capitalisation, the Provincial Auditor reports as follows.

From the information available, the actual capitalisation of the Alberta coal companies cannot be ascertained with anything approaching accuracy. In some

cases share capital has been issued as the purchase price of leases and other properties, and no information has been obtained as to the value of the assets so acquired.

Frequently proceeds of the sale of share capital and bond issues have not been expended entirely in acquiring assets necessary to carry on mining operations; investments have been made in bonds and securities of organisations outside the mining business, and in purchasing shares in subsidiary companies. Again, some companies having a low capitalisation operate developed property under lease agreements.

However, useful information has been obtained: the following table represents the values of the fixed assets as shown by the balance sheets and answers to Questionnaires submitted by the companies; reserves for depreciation and depletion, or allowances on account thereof, as above indicated, are deducted up to the date of the last balance sheet, but investments in subsidiary companies have not been included.

	Fixed assets less reserves.	Percentage of total output in Province by classes, 1932-3 to 1934-5
Bituminous	$15,127,174.18	About 91%
Sub-bituminous	1,826,216.89	" 31%
Domestic	4,202,569.33	" 62%
	$21,155,960.40	About 61%

2. Aggregate Profits and Losses.

Tables indicating for all reporting mines the aggregate profits and losses for the three last fiscal years were also prepared by the Provincial Auditor, and are printed in Appendix I.

Shortly, the significant fact is that the figures for those three years show for all operations—Bituminous mines, an average profit of about 13c a ton; Sub-bituminous, an average loss of about 8c a ton; Domestic, an average loss of about 15c a ton. In other words, it is only the steam coal-mines that are showing an average of profit, the other two branches of the industry indicating an average of loss.*

3. Increase of Cost Due to Lost Time.

As indicated above, the coal industry in Alberta, especially in the lignite and sub-bituminous fields, is very seasonal in character, during the summer from one to two days a week being the maximum worked. In addition, there is no doubt that the irregular employment from which the pits suffer, especially in the domestic field, is largely due to the fact that the output is spread over too many mines, resulting in an unnecessarily high proportion of overhead charges per ton produced. If a few number of mines were operated, they could be worked more regularly. It is true that more men are by this spread of work kept in some sort of employment, but on a basis of too few days a week work and at too low an average weekly wage.

*The chart, issued by the Dominion Fuel Board, July, 1935, of Operating Costs and Revenues for all Canadian Mines, 1931 to 1934, indicates similar conditions.

Much the same state of things was found in 1932 to exist in Nova Scotia: the Duncan Report stated:—

> "This system of working has two results. It brings all men employed down to an artificially depressed level of weekly earnings—wage rates mean nothing on days when there is no work—and it also greatly adds to the costs of producing the coal."

That Report went on to estimate this increase of cost at about 60c a ton.

In the present investigation the operators' Questionnaire contained an enquiry directed to the same issue, namely the increased costs of production due to idle time. The replies received indicated that difficulty was experienced by some operators in arriving at a definite answer, and others returned no answer. The Provincial Auditor's Department have summarised the replies of those who gave definite answers, as follows: *Bituminous* field; replies from 5 mines gave an average figure varying from 31c to 35c a ton; from 2 *sub-bituminous* mines a figure of about $1.00 a ton or slightly over: and 11 mines in the *domestic* field gave an estimate averaging 42c a ton. Evidence given by various operators in the course of the enquiry suggested figures which tend to show similar results: it is probably fair to assume an average figure of about 40c a ton as being, on the evidence, approximately correct.

4. Conclusion.

The various statistical tables given above and in the Appendix speak for themselves; they are referred to when necessary in subsequent portions of the Report.

CHAPTER V.

MARKETING.

1. Coal Consumption in Canada.

Full figures were given in the Evans Report for the years down to 1923; the figures since that year, as supplied by the Mines Branch, are as follows:—

Year.	Canadian short tons.	%	Imported short tons.	%	Total.
1924	12,864,951	43.3	16,828,578	56.3	29,693,529
1925	12,349,058	42.1	16,832,435	54.2	29,181,493
1926	15,449,931	46.1	18,056,139	53.8	33,506,070
1927	16,313,531	45.8	19,253,088	54.1	35,566,619
1928	16,700,352	48.5	17,714,296	51.1	34,414,648
1929	16,653,585	47.2	18,619,300	52.7	35,272,885
1930	14,256,812	44.7	17,620,074	55.2	31,876,886
1931	11,883,358	46.7	13,531,831	53.1	25,415,189
1932	11,453,426	49.5	11,673,428	50.4	23,126,854
1933	11,644,111	50.3	11,465,976	49.6	23,110,087

Coal Statistics for Canada, 1934, p. 25, give imported short tons for 1934 as 13,813,657, and the total for 1934 as 27,317,515.

The coal consumption in Canada by years since 1923, showing amounts and percentages of each character of coal, is as follows:—

Year.	Anthracite short tons; millions.	%	Bituminous short tons; millions.	%	Domestic short tons. millions.	%	Total short tons. millions.
1924	4.1	13.80	22.0	74.08	3.6	12.12	29.7
1925	3.8	13.06	21.7	74.57	3.6	12.37	29.1
1926	4.2	12.54	25.7	76.71	3.6	10.75	33.5
1927	4.0	11.26	27.6	77.74	3.9	11.00	35.5
1928	3.7	10.75	26.9	78.20	3.8	11.05	34.4
1929	4.0	11.33	27.3	77.34	4.0	11.33	35.3
1930	4.2	13.21	24.1	75.79	3.5	11.00	31.8
1931	3.2	12.60	19.3	76.00	2.9	11.40	25.4
1932	3.1	13.42	16.5	71.43	3.5	15.15	23.1
1933	3.0	13.00	16.7	72.30	3.4	14.70	23.1

This table seems to indicate that, in proportion, the consumption of domestic coal in Canada is tending to increase somewhat at the expense of the other varieties.

The coal consumption in Canada by Provinces in 1933 is as follows:—

Short Tons.

Province.	Anthracite.	Bituminous.	Domestic.	Total.
Nova Scotia	57,635	2,117,050		2,174,685
New Brunswick	95,530	591,450		686,980
Prince Edward Island	3,541	65,536		69,077
Quebec	1,731,658	2,676,967		4,408,625
Central Ontario	1,129,049	7,097,318	18,347	8,244,714
Head of Lakes and Manitoba	14,411	852,542	622,316	1,489,269
Saskatchewan	57	117,260	1,509,126	1,626,443
Alberta	75	1,906,646	1,151,096	3,057,817
British Columbia and Yukon	3,657	1,288,824	59,996	1,352,447
Total Tons	3,035,613	16,713,593	3,360,881	23,110,087

The imports of coal at Fort William, Port Arthur and Fort Francis since 1924 are as follows:—

In Short Tons.

	Bituminous.	Anthracite.	Total.
1925	865,421	50,938	916,359
1926	1,248,195	60,866	1,309,061
1927	1,586,249	79,344	1,665,593
1928	1,779,540	57,536	1,837,076
1929	1,835,686	52,672	1,888,358
1930	1,533,841	45,465	1,579,306
1931	761,827	18,302	780,129
1932	802,765	12,680	815,445
1933	587,248	8,750	595,998
1934	770,878	10,964	781,842

The Evans Report drew attention to the fact that the statistics for consumption in the various Provinces, and particularly in Manitoba and Saskatchewan, were not accurate, and suggested that the Dominion Bureau of Statistics, in co-operation with the Customs Department and the Railways, should ascertain separate figures for Saskatchewan, Manitoba and Ontario: the item "Head of Lakes and Manitoba" was unsatisfactory as Ontario, Manitoba and Saskatchewan may all be served under this heading. Table 88, p. 62, of *Coal Statistics of Canada,* 1934, appears now to give the statistics clearly.

2. General Survey of Alberta's Markets.

Under this head it is necessary to consider both the amount of coal consumed in recent years in various directions, i.e. by the Railways, in Alberta itself, in British Columbia and in other markets; and also the prospects of development in the future.

With regard to the prospects of future development generally, it must always be borne in mind that the coal industry is a portion of, and also dependent on, the general life of the country. As the country advances, the need of fuel increases, and when industrial conditions throughout Canada are depressed, the coal industry suffers proportionately.

The population of Canada, a country with vast open spaces and rich natural resources, tends to advance naturally by annual increment. In addition, for a good many years prior to the War population figures mounted annually by a large influx of migrants from Great Britain, the northern countries of Europe, and also from Poland and the Ukraine. Since the War, and particularly since the period of depression during the last five years, the flow of migrants into the country has been checked and has largely ceased. In view of the numbers of unemployed now on relief, the policy of the authorities and also of the Trades Unions has been to discourage migration from abroad into Canada. In due time the cloud of depression will lift, and the stream of migrants into the country will in the normal course begin to flow again.

In addition, developments will naturally take place in agriculture and in industry; farming is being prosecuted and land taken up in northern portions of the Province, and discoveries of minerals are also taking place in the Province and adjacent areas: the Flin Flon mine alone, opened in the last few years in Northern Manitoba, is now taking some 50,000 tons of steam coal from Alberta. This natural expansion of population, of agriculture and of industry, must in due course find reflection in a growth in the coal industry.

It cannot be too often repeated that the principal problem before the Alberta coal industry at the moment is too many mines and too few markets.

For the next few years, until times improve and the industrial and commercial crisis in which the world is at present plunged gives place to more normal conditions of prosperity, the interests of the coal industry will be best safeguarded by carefully cultivating existing markets. At the same time, all necessary steps must be taken to secure the greatest efficiency in operation and distribution so that when times improve the industry may be ready to take full advantage of increased opportunities for production.

3. Railway Market.

Since 1925 the figures of Alberta coal sold for railway consumption, according to the Mines Branch Reports, are as follows:—

	Bituminous.		*Sub-Bituminous.*		*Total.*	
Year.	Tons of 2,000 lbs.	% of Production.	Tons of 2,000 lbs.	% of Production.	Tons of 2,000 lbs.	% of Production of Province.
1926	2,468,124	85.6	238,316	46.5	2,706,440	41.5
1927	2,466,252	82.6	293,513	49.3	2,759,765	39.7
1928	2,706,507	84.1	347,732	46.9	3,054,239	44.0
1929	2,625,937	84.8	297,890	44.5	2,923,827	43.2
1930	1,838,001	61.1	282,236	46.7	2,120,237	39.1
1931	1,431,923	77.5	236,528	50.1	1,668,451	39.1
1932	1,353,590	78.0	266,331	47.6	1,619,921	35.7
1933	1,249,812	72.3	250,249	45.1	1,500,061	34.8
1934	1,434,727	74.8	253,123	47.0	1,687,850	38.7

The Mines Branch furnished information that the tonnages shipped to the Railways up to and including September 30th, 1935, as compared with the corresponding period of 1934, are:—

	Bituminous. Tons.	Sub-bituminous. Tons.	Total. Tons.
Sept. 30th, 1934	1,080,932	164,674	1,245,606
Sept. 30th, 1935	1,236,341	192,877	1,429,218

showing an increase for 1935 of 183,612 tons.

From the figures submitted in the table two points are clear; first, that the Railways are still the largest individual users of Alberta coal; second, that the past few years have shown a steady decrease in the amount of coal taken and used by them, and that notwithstanding the fact that assisted freight movement has helped to maintain the output to the Railways.

The large decrease is chiefly due to the general decline in traffic; the Railways during the past few years have had much less wheat, lumber and commodities to haul: in addition, the road transportation has greatly increased and tended to take traffic, both passenger and freight, away from the Railways.

It was urged in evidence by the steam coal operators at Blairmore that the consumption of oil by the Railways was increasing, but *Petroleum Fuels in Canada,* 1935, and the Dominion Fuel Board give the figures of oil consumption by the Railways in the Prairie Provinces for the last four years as follows:—

	Imperial gallons.
1931	8,055,715
1932	10,001,789
1933	7,818,010
1934	8,499,000

The policy of the Railways continues to be one of preference for Canadian coal, but as between one Canadian mine and another the question must naturally be decided on business grounds. The Railways desire regularity of supply and

efforts to secure this have been made in recent years, especially in the Crow's Nest Pass area: recently a re-organization has taken place in connection with the McGillivray Creek and International mines in the Pass, involving a close connection for purposes of working and management between the two, and one General Manager is now in charge of both mines; there is also a connection with the smelter at Trail, B.C., and this organisation is now in a strong position to secure contracts for coal with the Canadian Pacific Railway Company.*

In addition, there have been rumours, as stated in evidence, of an amalgamation or combination between the other principal mines in the Crow's Nest Pass, and if this should take place there would be two strong groups working on economic lines, looking to the Canadian Pacific Railway as their chief customer. The steam coal mines in the Mountain Park area have as their principal customer the Canadian National Railway.

The managements of the Railways have in recent years been taking active steps to secure all possible economies of operation by means of fuel saving appliances and so on; the amount of saving so effected has been put as high as 25%. In the normal course of business the Railways have also been using every effort to secure steam coal for their own consumption at as economic a rate as possible. It is a matter for consideration whether, in the interests alike of the steam coal industry and of the public at large, and indeed of the Railway Companies themselves whose prosperity must largely depend on the industrial welfare of the areas they serve, some steps should not now be taken with a view to stabilising the price of coal taken by the Railway Companies. The matter is referred to further on in the Chapter on *Regulation.* Generally, however, the increase of demand for coal by the Railways in the future must depend on the development of the country and the improvement in trade.

4. Market in Alberta.

The figures of shipments by Alberta mines for consumption in Alberta since 1925, and which show the coal consumed within the Province, apart from railway coal, are as follows:—

Year.	Bituminous. Tons.	Sub-bituminous. Tons.	Domestic. Tons.	Total. Tons.
1926	96,884	56,779	1,171,627	1,325,290
1927	135,086	61,427	1,311,576	1,508,089
1928	113,001	70,213	1,226,261	1,409,475
1929	110,894	53,779	1,281,882	1,446,555
1930	104,788	45,156	1,084,438	1,234,382
1931	81,764	26,527	912,403	1,020,694
1932	42,612	26,190	1,065,509	1,134,311
1933	45,809	34,981	1,042,567	1,123,357
1934	37,467	40,906	1,009,525	1,087,898

The Mines Branch gives the tonnages shipped to Alberta up to and including September 30th 1935, as compared with the corresponding period of 1934, as follows:—

Year.	Bituminous. Tons.	Sub-bituminous. Tons.	Domestic. Tons.	Total. Tons.
30th Sept., 1934	23,650	24,674	575,969	624,293
30th Sept., 1935	26,982	26,326	662,309	715,617

showing an increase of 91,324 tons for 1935.

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*See *Western Canada Coal Review,* April-May, 1935, p. 28.

It will be noticed that while the figures of shipment for domestic coal have remained fairly stable, those for bituminous coal have dropped very considerably, this being a reflection of the industrial crisis. As in 1925, it is fair to state that there is no import of coal into the Province of Alberta of sufficient size to disturb the market. Several reasons were assigned as the cause of the drop, amongst them being increased use of gas for heating, and of hydro-electric power; production by farmers and other small operators mining their own coal by permit or illegally; and conservation of fuel due to depression and hard times.

Competition from Gas.

Mr. H. R. Milner, K.C., presented the case for the gas industry in his capacity as President of the Northwestern Utilities Ltd.

There are in Alberta two principal Companies supplying gas, the Canadian Western Natural Gas, Light, Heat, & Power Company, which serves Calgary, Lethbridge and neighbouring towns; and the Northwestern Utilities Ltd., serving Edmonton and towns along the main line with gas piped from the Viking field: Medicine Hat has its own city gas supply. It is proposed to open up shortly the new Kinsella field, 10 miles from Viking, and with a much greater capacity.

Mr. Mayne Reid, K.C., appearing at Edmonton on behalf of certain coal undertakings, suggested some restriction should be placed upon the production on the coal industry; for instance, no royalty was paid. On the other hand, it gas was not subject to Government charges on a scale similar to that imposed on the coal industry; for insance, no royalty was paid. On the other hand, it was claimed on behalf of the Gas Companies that though they paid no royalties, they were liable to a charge equivalent to 13.9% of gross revenue in Municipal, Provincial and Dominion taxation, which was a greater burden than was imposed on the coal industry: in addition, owing to the restrictions upon the gas industry by the Public Utilities Commission, and the limitation of rates chargeable to the public, the Gas Companies could not put aside reserves out of profits as could the coal industry.

The case between gas and coal as public utilities was pressed on both sides in considerable detail, but it is not necessary for the purpose of this enquiry to set these arguments out at any length; suggestions however will be made later in the Report with regard to steps to be taken to bring all the fuel resources of the Province under a general Government supervision.

Generally, with regard to the future, in Edmonton, Drumheller and other centres the smaller sized coals are used for power production and satisfactory results are claimed: in view of the high efficiencies obtainable in electric production by modern steam plants and generators, it is desirable, as mentioned elsewhere, for the industry, acting in co-operation with the Government, to consider the establishment of large electric power supply installations in Alberta, with a view to utilising her easily and cheaply produced coal supplies; to securing a supply of cheap power under the control of the industry itself at the mines; and to absorbing a considerably increased number of miners and other workmen.

5. Market in Saskatchewan.

The figures since 1925 of shipments by Alberta mines for consumption in Saskatchewan are as follows:—

Year.	Bituminous.	Sub-bituminous.	Domestic.	Total.
1926	68,265	53,455	1,174,461	1,296,181
1927	86,968	72,444	1,268,492	1,427,904
1928	87,032	84,489	1,339,620	1,511,141
1929	87,733	74,807	1,292,673	1,455,213
1930	61,876	61,393	1,098,273	1,221,542
1931	53,986	27,237	824,351	905,574
1932	55,071	33,609	1,008,702	1,097,382
1933	74,541	21,733	956,636	1,052,910
1934	66,222	14,165	906,252	986,639

The Mines Branch gave information that briquettes shipped from Alberta to Saskatchewan in 1926 were 3,837 tons, and in 1934, 1,808 tons; also that tonnages of coal shipped to Saskatchewan up to and including 30th September 1935, as compared with the corresponding period of 1934, were:—

Year.	Bituminous. Tons.	Sub-bituminous. Tons.	Domestic. Tons.	Total. Tons.
30th Sept., 1934	47,883	7,183	519,768	574,834
30th Sept., 1935	37,690	7,327	550,297	595,314

showing an increase for 1935 of 20,480 tons. Briquettes for the same period also were on the up grade, from 913 tons to 1,396 tons. W.F.A.

The Royal Commission presided over by Mr. Justice Turgeon, which reported in 1934 on the mining industry in the Province of Saskatchewan, indicated a very considerable growth in the total annual production of coal in that Province, which had increased by 59.8% between the years 1929 and 1933, while during the same period the production in British Columbia had declined 44.5%, and in Alberta by 34%. The comparative figures of production in each Province are as follows:—

	1929. Tons.	1933. Tons.
Saskatchewan	580,189	927,649
British Columbia	2,490,378	1,382,272
Alberta	7,150,693	4,718,788*

In 1928 Saskatchewan took only 167,205 tons of its own output, whereas in 1933, 477,209 tons of this output were used inside the boundaries of the Province itself.

The increase in tonnage produced in Saskatchewan is due to a number of factors, the most important being the development of large scale stripping operations near Estevan, where low cost production has been obtained; this has forced a large tonnage of cheap coal on the market and intensified competition. Crop failures during the past four years have also resulted in much distress, and this has helped the low grade, low priced coals.

Saskatchewan Governments have encouraged the use of native coals as far as possible, and in public buildings they have changed boiler-settings and equipment to further the economical use of their own coal for heating and steam purposes. Where possible, Saskatchewan coal has been given and required for relief recipients. Generally very little coal, apart from that mined in Saskatchewan and Alberta, is used in the Province, and coal from these two sources monopolises the market.

Coal Statistics for Canada, 1933.

Though the prospects for Alberta coal do not look bright at the moment, operators and salesmen with long experience believe that a return to anything like normal conditions will result in a large number of domestic consumers in the Province resuming the purchase of higher grade domestic coals from Alberta.

6. Market in British Columbia.

Since 1925 the Shipments by Alberta mines for consumption in British Columbia have been as follows:—

Year.	Bituminous.	Sub-bituminous.	Domestic.	Total.
1926	34,725	21,683	71,450	127,858
1927	51,347	33,104	102,577	187,028
1928	93,348	39,969	128,881	262,198
1929	52,404	52,411	132,025	236,840
1930	41,664	52,633	133,088	227,385
1931	41,653	37,703	92,284	171,610
1932	13,705	38,292	84,191	136,188
1933	22,585	33,010	65,316	120,911
1934	42,934	27,170	57,534	127,638

Here again there has been a considerable decline since the peak years of 1928 and 1930, the drop having been slightly over 50% between 1928 and 1934.

However, the Mines Branch reports that from the returns made up to September 30th of this year, as compared with the corresponding period of 1934, the slight recovery shown last year has been maintained, as follows:—

	Bituminous. Tons.	Sub-bituminous. Tons.	Domestic. Tons.	Total. Tons.
30th Sept., 1934	30,479	14,197	29,136	73,812
30th Sept., 1935	72,519	21,852	38,690	133,061

From this it would appear possible that the 1935 tonnage to British Columbia would at least reach the average of the last 10 years.

Since the Evans Report, the making of coke was recommenced in 1932 at Coleman in the Crow's Nest Pass, the bulk being used at the Trail smelter. Briquettes from Canmore also find considerable market in British Columbia, the tonnage of briquettes and coke from 1925 being:—

	Shipments to British Columbia of: Briquettes.	Coke.
1925	96	....
1926	2,058	....
1927	6,686	....
1928	9,410	....
1929	11,081	....
1930	9,759	....
1931	7,315	....
1932	4,534	1,261
1933	3,646	48,284
1934	2,578	59,062
To Sept. 30th, 1934	1,333	43,871
To Sept. 30th, 1935	1,982	45,729

During the past four years, several factors have militated against the sale of Alberta coal in British Columbia; considerable efforts have been made to encourage the use of British Columbia coal within that Province, and with this object attacks were made on the heating qualities of Alberta coal. Sawdust burners have been increasing in use and sawdust briquettes have also been introduced: gas, oil, wood, coke and electricity are also competitive fuels. The consolidation of the operations on Vancouver Island and re-organisation of selling in Vancouver resulted in a lowering of price as against that of Alberta coal.

In spite of this severe competition, many of the domestic operators look to an increased market in British Columbia, especially in Vancouver. One Company which for several years could not dispose of a ton in Vancouver, but is now commanding a considerable trade there, claims that Vancouver consumers prefer Alberta coal on the ground that it is cleaner, is freer burning, and does not soot and clog up furnace pipes to the same extent as Vancouver Island coal; Coalspur coals in particular seem to command a better market than Island coal. Some years ago prejudice was stated to exist among the dealers against Alberta coal, but this is believed now to have largely disappeared.

The Evans Commission reported ten years ago, p. 137, that with energy and concerted action on the part of the Alberta operators there should be a good prospect for Alberta coal in British Columbia markets, but apart from the boom years of 1928-30, in spite of the active measures taken by Alberta operators, this prophecy has not been realised. The Dominion Government were also to be asked to erect bunkering facilities, e.g. at Prince Rupert, but a House of Commons Committee reported unfavourably on this proposal.*

To-day, as ten years ago, it seems that given active effort and some measure of co-operative action between the various interests concerned, and their agents, there is a good prospect that within the next few years the Alberta operators may strengthen their hold on the British Columbia market. The Drumheller and Coalspur area coals are selling in Vancouver at about $11.50 and $10.50 for lump, or about $1.00 a ton over Vancouver Island coal: help would certainly be given if the railway rate, which is at present approximately $5.00 to Vancouver from both Drumheller and Lethbridge and is considered a high one, could be reduced; proposals for a reduction are stated to have been under consideration, and if a reduction of $1.00 a ton were granted, probably a substantial increase of the traffic would result.

A Commission under the experienced Chairmanship of the Hon. Mr. Justice Macdonald is taking evidence at the moment as to the supply of fuel generally in British Columbia.

7. Market in the United States.

The figures of shipments from Alberta mines for consumption in the U.S.A. show a steady and continuous shrinkage from 1918 to 1934. The Evans Report emphasised the shrinkage up to 1925, and the same process has gone on steadily since then.

Year.	Bituminous.	Sub-bituminous.	Domestic.	Total.
1917	90,337		2,473	92,810
1918	130,082		3,154	133,236
1919	114,409		6,696	121,105
1920	115,415		37,893	153,308
1921	100,330		33,085	133,415
1922	86,640	351	18,453	105,444
1923	62,254	122	21,181	83,557
1924	26,777	63	12,302	39,142
1925	23,123	34	17,350	40,507
1926	26,313	1,042	20,861	48,216
1927	16,357	535	28,368	45,160
1928	17,873	1,038	33,354	52,265
1929	22,136	221	29,268	51,625
1930	25,294	241	25,294	44,291
1931	10,653		19,781	30,434
1932	5,854	204	21,308	27,366
1933	4,084	33	14,332	18,449
1934	4,146		9,593	13,739

*House of Commons Committee Report, June 22, 1926, p. 362.

Tonnages shipped to the United States up to and including September 30th 1935, as compared with the corresponding period of 1934, are:—

	Bituminous.	Sub-bituminous.	Domestic.	Total.
Sept. 30, 1934	1,519	....	3,496	5,015
Sept. 30, 1935	6,486	143	4,996	11,625

Increase for 1935 over 1934 period, 6,610 tons.

This steady total decline is due to barriers and restrictions set up with a view to retaining as much business as possible inside the boundaries of the United States for American mines.

When coal was shipped from Alberta to the States in the peak years, the proportion was about two-thirds bituminous, the balance domestic. There is now no duty on bituminous; lignite (also now duty free) is classed as coal having not less than 6% moisture content, as mined.

At the suggestion of the Western Canada Fuel Association an interesting memorandum was contributed recently to the *Western Canada Coal Review* by a writer with experience both of western coal and of the American markets.* The views expressed are of importance and are supported by other evidence. The states of Montana, Idaho and Washington present a natural marketing field for Western Canada coal, and in the early days of coal mining in Alberta and British Columbia considerable tonnages were sold in the Western States. A circle with a radius of 300 miles drawn from the centre of the Crow's Nest District, will be found on the northern or Canadian side to cover a territory somewhat sparsely inhabited, and served largely by hydro-electricity or natural gas; but the southern half of the circle, mainly in the U.S., is a more populous territory, and has numerous industries using coal. The steam coal mines in the Crow's Nest Pass district of Alberta and British Columbia used to ship large quantities of coal to railways operating in Washington and Oregon: the entire requirements of the Great Northern Railway in the western region, amounting to as much as three-quarters of a million tons a year, were at one time supplied by a Crow's Nest Pass company; with a duty of 16c per ton on slack coal, substantial tonnages of this grade were also placed with industrial concerns in the north-western States.

During the last two decades, however, there have been drastic changes resulting in the almost complete loss of the above markets. First, the cancellation of an existing joint freight rate proved very detrimental to Alberta coal and largely destroyed the market in Northern Montana and North Dakota. Then the use of oil became increasingly popular on railways served by the Alberta and eastern British Columbia coal mines. Finally, the increase of the duty from 16c to 50c per ton on slack, followed by an increase to 75c on all grades except lignite, reduced the Alberta tonnage to a negligible quantity. On bituminous coal there is now no duty on the traffic passing from Canada to U.S.A., but there is a duty of 75c a ton on bituminous coal passing from U.S.A. into Canada.

In 1934, as stated, the export from Alberta mines into the U.S.A. had shrunk to 13,739 tons, while the total exports of all coal from Canada to the United States had dwindled to 107,162 tons against an import from the States of 11,748,289 tons.*

**Western Canada Coal Review*, April-May, 1935, p. 26: article by George B. Saunders, then of the Crow's Nest Pass Coal Co. Ltd.

*See Coal Statistics for 1934, p. 14.

On merits, Western Canadian steam coals should be able to compete in the U.S. territory mentioned, as they have a higher calorific value than the coals mined on the U.S. side. The mine costs also do not differ materially, and it would seem, therefore, that the Crow's Nest Pass district *prima facie* should have a good outlet to the south.

On the other hand, the suggestion of a favourable market south of the line is one that many witnesses before the Commission found difficult to accept. The principal centres where Alberta coal might be sold, or has been sold in the past, are Seattle, Spokane, Northern Montana and North Dakota.

(a) With regard to Seattle, one witness of experience stated that in his view there was little chance of getting any tonnage into the Seattle market, except in cases where mines in Western Washington were closed by a strike. Coal comes by truck into the Seattle-Tacoma area, and there is a low freight rate from Rosslyn for steam coal. Most of the coal handled in the Seattle market is from mines in Utah and Wyoming, while a percentage is obtained from Vancouver Island.

Another witness of experience stated that he had, by the exercise of considerable personal energy, begun to establish something of a market in Seattle, but found that either by action of the Inter-State Commerce Commission or of the Customs authority, the market was in fact very soon closed to him and he had to give it up. This accords with the evidence in the Evans Report that if freight rates on this side were reduced so as to allow of entry into the Seattle market, the coal dealers in Wyoming and Utah might be expected to put pressure on the Inter-State Commerce Commissions for a reduction in rates to meet the competition of Alberta coal.

(b) Spokane. Ten years ago one witness before the Evans Commission expressed himself as hopeful for the prospects of Alberta lignite in the Spokane market, certainly if a freight rate of $4.50 a ton and abolition of duty could be secured. Others, on the other hand, thought that Spokane was even more of a dumping ground than Winnipeg, and that competition there was bound to be severe. An expert witness before the present Commission reports that the Spokane market has dwindled almost to nothing as far as the sale of Alberta coal is concerned. The mines in Montana, Utah and Wyoming have lowered their prices and also secured reductions in freights to an extent which makes competition from Alberta almost impossible.

Evidence was given that the biggest competitor that, for example, the Lethbridge coals have in the Spokane territory is the Kleenburn from Sheridan, Wyoming, which is about a 1,300 mile haul; the competitive prices are:—

Kleenburn.		
Lump over 1½″ f.o.b. mine	$ 1.75	
Freight	4.45	
Emergency charge	.15	
Dealer's margin	4.00	
	$10.35	Retail price, plus 2% Sales Tax.
Lethbridge.		
Lump f.o.b. mine	$ 3.75	
Freight	2.88	
Emergency charge	.15	
Dealer's margin	4.00	
	$10.80	Add 2% Sales Tax.

Nut f.o.b. mine	$ 2.75
Freight	2.68
Emergency charge	.15
Dealer's margin	4.00
	$ 9.60

Information given on behalf of the C.P.R. corroborated these rates; the Sheridan rates on lump coal into Spokane is normally $4.95, but it is fixed at $4.45 till April 30th 1936, when it comes up for reconsideration. It is understood that if the $4.45 Sheridan rate is likely to be reduced, the C.P.R. will be prepared to consider further reductions on this side.

The line which carries Lethbridge coal on the other side of the boundary to Spokane is the Spokane International, which is in close relationship with the C.P.R.

The C.P.R. has shown willingness to co-operate in endeavouring to secure entry for Alberta coal into the American market; that Railway now has in effect proportional rates to the frontier for Alberta coal shipped through to the United States, substantially below the normal rates to the border for local delivery; e.g. on Lethbridge, Drumheller, Edmonton and Canmore there is in the proportional rate a reduction of about 20%, i.e. varying from 80c to 90c.

The dealers in Spokane are in a sound position and secure a good margin of profit; they have a strong Association which, as was found to be the case 10 years ago, is not favourable to Alberta coal but presses the sale, not unnaturally, of U.S. coal.

(c) Northern Montana. Evidence given during the Evans enquiry showed that in 1910 or 1911, Alberta coal enjoyed a considerable market in Northern Montana, as already indicated, by an easy freight rate at that time from Lethbridge to Great Falls of about $2.50 per ton, as against the freight rate in 1925 of $4.00 a ton.

(d) North Dakota. This again offers a big potential field of which a portion possibly could be secured for Alberta coal, if prices and freight rates could be reasonably adjusted. At the time of the Evans Report, this market was taking a certain quantity of Alberta coal, especially of the smaller sizes, owing to its suitability for domestic purposes, but this market seems largely to have disappeared. It must be borne in mind that mines of lignite, though not of high quality, exist in the area. One expert witness before the present Commission stated that he had opened up in North Dakota, but the only opportunity there was when the price of American anthracite was high. At the time of the enquiry he reported that there was a surplus of anthracite, and in addition the territory was served from Duluth Docks with West Virginian and Kentucky coals.

This general evidence, therefore, was not of a hopeful character. On the other hand, the author of the article quoted above points out three new factors which in his opinion should in the immediate future give a better prospect for Alberta coal in the States above mentioned.

First, in the summer of 1933 the duty was entirely removed on Canadian lignite and recently on Canadian bituminous coal entering the U.S.; the duty on Canadian coal was retaliatory in character, and was somewhat unreasonable in view of the fact, as indicated above, that 9½ million tons of American coal were imported into Canada as against 100,000 sent from this country to America, and in these circumstances it is probable that the American Government felt

that a retaliatory duty on the part of America against the Canadian importation, which was practically a bagatelle, could hardly be maintained.

Secondly, the western Canadian steam coal mines have now considerably bettered their products by cleaning plants, dust treatment and better screening.

Thirdly (and this is perhaps the most important), the Guffey Act has now come into operation with regard to bituminous coal. The article indicates that the Act is working satisfactorily and, as stated elsewhere, decisions of the Federal Court have been handed down that the Act is not entirely *ultra vires* of the Constitution: these decisions are, however, subject to appeal.

The Guffey Act was intended amongst other things, to prohibit price cutting and to secure reasonable regulations for the industry, and since the Act came into operation in the American territory referred to above, according to the memorandum quoted, price cutting has been reduced to a minimum and the industry has expressed itself in favour of maintaining the provisions of the Act. In these circumstances, the price of bituminous coal is likely to keep up to a certain standard, somewhat higher probably than in the past, which should give an opportunity for Alberta coal, certainly if freight rates and prices can be reasonably adjusted. But it is important to notice that price cutting or unfair practices on the part of Canadian operators would be dangerous if they wish to secure any share in this market: American operators, who have accepted the Guffey Act, and the regulations prohibiting price cutting and unfair practices, would naturally raise strong objection to the admission of Canadian coal, if sold under unfair conditions.

In addition, it would be necessary for the Canadian operators to make arrangements for the wholesaling of their own coal. It is rumored that in Spokane some of the local selling organisations have direct interests in competing American collieries. On the other hand, there is no particular prejudice against Canadian coals, nor are Canadians looked upon as foreigners.

It is urged, therefore, that if the Canadian mines desire to export to this territory and would get together and agree to work on the basis of a voluntary code, following as far as possible the code of the mines in the U.S. with which they are competing, the risk of prejudice would disappear. Wage scales paid on both sides of the line are pretty much alike, so that a Canadian code on American lines should be difficult to arrive at. The code would prevent ruinous price cutting and make the tonnage sold in the territory profitable, even if it were not large in volume.

These suggestions are worthy of careful consideration; but in view of the evidence given before the enquiry, it is doubtful if Alberta coal is likely to secure any considerable market in the U.S.A. unless possibly as a result of diplomatic adjustments.

8. Market in Manitoba.

Shipments by Alberta mines for consumption in Manitoba since 1925, as supplied by the Mines Branch, are as follows:—

Year.	Bituminous.	Sub-bituminous.	Domestic.	Total.
1926	60,897	68,432	461,938	591,267
1927	80.447	76,064	456,031	612,542
1928	40,429	96,831	467,865	605,125
1929	38,629	92,494	457,524	588,647
1930	76,129	73,177	392,231	541,537
1931	118,912	48,228	275,621	442,761
1932	155,252	62,955	278,799	497,006
1933	140,691	66,839	242,151	449,681
1934	114,939	70,981	205,212	391,132

The Mines Branch also give the following figures of the tonnage shipped to Manitoba up to and including 30th September 1935, as compared with the corresponding period of 1934:—

	Bituminous. Tons.	Sub-bituminous Tons.	Domestic. Tons.	Total. Tons.
Sept. 30th, 1934	78,656	42,988	111,032	232,676
Sept. 30th, 1935	94,587	36,538	113,827	244,952

showing an increase for 1935 of 11,276 tons.

The total figures show a steady decline in tonnages during the last few years; for movements of domestic coal into Manitoba from Alberta, the tonnage has fallen since the peak year of 1928 from 467,865 tons to 205,212 tons in 1934, a drop of a quarter of a million tons in the period.

The Winnipeg market is undoubtedly a severely competitive one, and Alberta coal has to meet opposition from other sources of fuel supply, some of which have developed rapidly in the last few years. One species of competitive fuel, however, namely coal imported from America, has declined rapidly since the Evans Report, and especially in the last few years; in 1930 there was shipped into the Province of Manitoba by the Railway Companies from the Head of the Lakes American anthracite, bituminous and coke totalling over 550,000 tons, used both for commercial and for railway purposes, but this had dropped in 1934 to a total figure of just over 130,000 tons.* The Guffey Act, tending to stabilise prices in the bituminous coal field in the United States at reasonable figures, will probably result in a further diminution in imports of American coal.

On the other hand, wood fuel, cheap electric power and central heating in alliance with electric power, have undoubtedly closed many opportunities for coal consumption; Saskatchewan lignite is becoming an active competitor; and oil and gas have also to be reckoned with.

Wood Fuel.

This is largely a new feature and has grown to considerable proportions in the last five years. Information was supplied from Winnipeg that this increase in the consumption of wood fuel was largely due to the depression, and to the cheapness of some forms of wood. Recent figures are approximately as follows:—

Estimate of Wood shipped into Winnipeg, 1st January to 31st December, 1934.

	Cords.
Greater Winnipeg Water District	97,835
Canadian National Railway	160,496
Canadian Pacific Railway	40,000
Trucks	50,000
	348,331

A large proportion of this considerable tonnage, about 50,000 to 60,000 cords or approximately one-sixth, was issued by the City wood yard for relief purposes.

The average retail price per cord is round about $6.00 to $7.00, according to quality, as quoted by the regular dealers; the trucker who operates within a radius of 50 miles round the City is often prepared to sell at an average price of

*Movements of American coal into Manitoba in the last five years are:

1930	1931	1932	1933	1934
569,000	372,000	291,000	207,000	131,000 tons

The figures are supplied by the Dominion Fuel Board.

$1.00 or more below this. On the other hand, Drumheller double screened lump sells delivered at $11.35 a ton, two cords of wood being approximately rather more in price than one ton of coal. Coal has considerable advantages, not only in calorific value, but in convenience; a furnace will require re-stoking with wood once or twice during the night, while a furnace stoked with coal will last the night through.

The danger of the wholesale destruction of live timber for fuel is one which is arousing attention in many countries; and information was given that the Province of Manitoba is alive to the danger and is imposing restrictions on the cutting of growing timber for fuel, and requiring supplies as far as possible to be by way of salvage of blighted timber or timber partially damaged by fire.

In the case of Alberta and Saskatchewan, the Railways have given a concession in the case of coal, where trucking competition is severe, of a special competitive tariff on coal varying up to 50c a ton, and within a radius of 100 miles. This has, it was stated, in the last year to two restored a material amount of traffic to shipping mines and to the Railways, and it was suggested a similar concession might be granted to meet the trucking of wood into Winnipeg.

Coal used for industrial purposes has the benefit of a 70c per ton subvention into East Manitoba and Winnipeg under P.C. 1121, but this does not apply to coal when used for household purposes.

Electric Power.

There are two large electrical undertakings in the City, both employing water as their main source of power supply; these are:—

(a) The City Hydro-Electric System, which is a municipal undertaking and has two plants, one at Slave Falls, and the other at Point du Bois, generating between them a total of 160,000 H.P.; there is also a steam standby plant.

(b) The Winnipeg Electric, which is a private Company and has three plants, at Seven Sisters, Great Falls, and Pinnewa, with a total of 175,000 H.P.; there is no steam standby plant.

In the case of both undertakings the industrial rate is approximately one-seventh to one-tenth of a cent per K.W. The load factor is from 50% to 60%, and there is a large amount of secondary power available, which is being made use of for purposes of central heating. The City Hydro-Electric supply the central heating installation for the down-town area consisting of offices and public buildings; in the suburbs the franchises for central heating have been granted to two Companies, the Northern Public Service Company, and the Winnipeg Heating Company, who are now taking their electric power from the Winnipeg Electric. In both cases the installation for central heating has meant a serious diminution in the coal consumption in Winnipeg; prior to electricity being used for the purpose of central heating, the down-town area, now supplied by the City Hydro-Electric consumed, it was estimated, at least 60,000 tons of coal per annum. Similarly, the two areas in the suburbs supplied by the two central heating Companies mentioned consumed, before there was any company supply of central heating available, approximately 30,000 to 40,000 tons of domestic coal a year: the two central heating Companies in question, when they took on the supply to the suburbs, themselves at first made use of coal and consumed about 45,000 tons a year for the purpose, approximately equivalent to the amount which the houses had previously consumed. Within the last 18 months the two Companies are increasingly using off-peak electric power

with a corresponding reduction in coal consumption: consequently, the substitution of cheap electric power for coal in the supply of central heating, both in the City area and in the suburbs, has resulted in a reduction of at least 100,000 tons of coal a year.

Saskatchewan Lignite.

Activity has been displayed in the last few years by Saskatchewan operators in order to increase their market in Winnipeg. The Dominion Fuel Board state that Saskatchewan coal enjoys a subvention in the Manitoba market of 35c a ton under P.C. 1120, provided the coal is not used for household purposes: but under a Ministerial ruling, only 15c now applies to stripping mines. *Coal Statistics for Canada,* 1934, give the total coal imported into Manitoba from Saskatchewan as 376,653 tons in 1933 and 381,213 tons in 1934; in 1926 it was only 203,000 tons odd.

General.

Shortly after the War, the market was largely disorganised, so far as selling agencies were concerned, by the "snowbird" retailers, i.e., irregular agents who retailed coal during the winter season and were otherwise occupied during the summer; and to meet this difficulty the Western Canada Fuel Association was formed to represent the various interests connected with the sale of coal in Winnipeg, and succeeded in eliminating the "snowbird" competitor.

Information was given that the producers' quota arrangement in Drumheller, in operation during the winter 1934-35, had been well received by dealers in Winnipeg, both wholesale and retail, and they had been anxious that it should continue. When the quota arrangement collapsed in the early part of 1935, ten Grain Companies made a working arrangement under the North West Grain Dealers Association, whereby all purchases of coal for the ten constituent line companies were to be made through the Association.

The North West Grain Dealers Association has been admitted to the Western Canada Fuel Association as a wholesale distributor, and claims that it is entitled to the wholesale distributor's commission. On the one side it is urged by other wholesale distributors and by various companies that the Grain Dealers Association is not in the proper sense of the word a wholesale distributor, and does not render the services of one; and that the concession of a wholesaler's commission in such a case amounts in effect to price cutting. Some operators, it was stated, have agreed to pay them the wholesaler's commission, but others have demurred to doing so. It was also urged that the definition of wholesale distributors given in the Saskatchewan Regulations required reconsideration from this point of view.

It is not possible in this Report to express an opinion on this difficult issue, except to say that it affords another argument in favour of some regulatory machinery in the industry.

The Winnipeg By-law requiring retail dealers in coal, coke and wood to be licensed and subjecting them to control and regulation has been revised as from 15th July 1935, and is held to be useful in operation. This By-law requires all coal and coke sold within the City to conform to certain specified grades, and also, that every coal dealer offering Alberta coal in the City shall state in his advertisement the registered trade name of the coal and the coal area in which it was produced.

With regard to the retailer's commission or spread-over for the sale of coal, as compared with that for the sale of wood, the customary retailer's margin in the case of Drumheller coal is $3.00 to $3.25 a ton; for coke it is $2.25 to

$2.50; but for wood it is nominal, or absorbed altogether by the costs of handling, carting, etc., the retailer expecting to recoup himself for absence of profit on handling wood by maintaining a fairly high margin for coal and coke. There does not seem to be any reason for this distinction, and the matter should be regulated by agreement amongst the dealers themselves; if a proper charge were made retailers for handling wood, their charge in respect of coal and coke could be adjusted.

So far as competition with cheap electric power is concerned in the City, prospects in the Winnipeg market do not appear very hopeful for Alberta coal, but there was a general consensus that as times improve greater purchasing power in Manitoba, especially in agricultural areas, would mean in many cases that domestic consumers would revert from wood to coal, and that probably Alberta coal, as being of a better quality than Saskatchewan lignite.

Other suggestions made for improving the market were increased advertising; coupled with restoration of the Alberta office in Winnipeg under a business man conversant with the coal industry, along the lines successfully pursued by Mr. Pratt in former years: a Commissioner would be useful not only in advertising Alberta coal, but also in "servicing" it, attending to customers' complaints, etc.: other suggestions were co-ordination of wholesale distributors and some co-operation between them; lastly, stabilisation of prices, preferably along the lines suggested by the Saskatchewan Regulations.

Finally, complaints were made that the freight rate on coal from Drumheller into Winnipeg, which now stands at $4.70 a ton, was high and a barrier to any considerable development of the import of Alberta domestic coal into Manitoba. It is, however, pointed out on behalf of the Railways that the existing rate for coal is in fact 10c to 20c lower from Drumheller and Lethbridge than if fixed on the ordinary mileage basis.

The Evans Report in 1925 had suggested that the Railway Companies should be asked to consider a lower rate; the rate stood in 1925 as it stands to this day at $4.70, and the suggestion, therefore, has fallen on deaf ears. The attitude of the Railway Companies has been not ungenerous to Alberta coal, and if the lowering of the rate were possible, this would undoubtedly be a very real assistance.

9. Market in Ontario.

The total figures of shipments by Alberta mines for consumption in Ontario since 1917 are given by the Mines Branch as follows:—

Year.	Bituminous.	Sub-bituminous.	Domestic.	Total.
1917	....	....	....	....
1918	185	....	410	595
1919	60	....	248	308
1920	630	....	13,281	13,911
1921	3,070	....	6,828	9,898
1922	126	798	20,649	21,573
1923	....	1,559	50,775	52,334
1924	10	558	15,957	16,525
1925	....	2,868	25,963	28,831
1926	....	4,449	70,110	74,559
1927	....	1,880	20,800	22,680
1928	82	12,851	31,332	44,265
1929	....	10,507	44,828	55,335
1930	33	5,570	24,181	29,784
1931	256	5,838	20,942	27,036
1932	279	5,709	14,495	20,583
1933	1,889	19,166	18,382	39,437
1934	3,388	20,356	32,203	55,947
1935	3,124	21,388	37,984	62,496

The totals have varied considerably; for instance, in 1923 the figure was high owing to strikes in the U.S.A. In 1926 the figure reached 74,559 tons, but that was under stress of a further strike in the Pennsylvania fields. Trials of assisted rates were made during the years 1928 to 1932, but as these were experimental in character, as explained below, no very definite results were obtained. On the other hand, in 1933 the $2.50 subvention was established, and since then there has been a definite improvement in the movement of coal from Alberta to Ontario.

The whole portion of such a movement is involved in the cost of transportation, due to the long haul from Alberta to Ontario—approximately four times the distance to be covered to bring coal up from Pennsylvania into the same market, and three times the distance for transportation from Nova Scotia, in both these areas the traffic being largely water-borne.

Unless the freight per ton of coal from Alberta can be brought down to $5.00 or less, Alberta coal is bound to have difficulty in competing in the Ontario market. As this market affords, according to the evidence, definite possibilities of development for the sale of Alberta coal, and as the desirability on general grounds of opening up such a market has been recognised by various Governments, it is necessary to give the history of the Ontario market in some detail.

History.

So long ago as 1902, a strike in the American coal-mines had sounded a warning note of the danger to Canada of too great dependence on American coal supplies; and shortage of fuel experienced, first in the Great War, and then as a result of the strike in the American coal industry in 1923, effectively roused Canada, and especially Ontario, to the grave peril of relying so largely on the United States. In March 1919, the wartime Fuel Controller when laying down his duties had emphasised the peril; and the point was again driven home by a special House of Commons Committee in 1921. In November 1922, the Dominion Fuel Board was constituted by Order in Council to investigate the problem, reference being expressly made in the Order to "The certain *ultimate necessity*" of substituting other fuels for anthracite coal for domestic heating purposes in Central Canada.

The Board, which has been presided over from its inception by its present able Chairman, Dr. Charles Camsell, Dominion Deputy Minister of Mines, issued its first Report in May 1923. The Report proclaimed emphatically the risk involved in the dependence of Central Canada, and particularly of "The acute fuel area" in Ontario and Quebec, on the United States for its main fuel supply. This danger was stressed more than once, and especially the risk of the country being lulled into a false sense of security directly conditions became more normal and American resources were again available. "*Canada's ideal must be reliance on its own fuel resources*": Canadian supplies might come either from the East or from the West—either from Nova Scotia or Alberta—the crucial problem in both cases being transportation costs.

The Report declared that trial shipments into Ontario had proved that Alberta coal had a "Distinct advantage over United States bituminous in being practically smokeless": in the case of domestic coal, the Board was aware of a local preference for U.S. anthracite, but had been "Persistently fighting this unreasonable prejudice."

The Second Report of the Board, issued in August 1928, suggests that the "False sense of security" had already become operative: less stress was now

laid on the danger involved, more on the difficulties of transportation. Since 1923 the Board had continuously applied itself to the problem of finding fuels to replace U.S. anthracite for domestic purposes, and made it clear that Alberta coals, though available in Toronto as yet only in experimental quantities, had proved acceptable as fuel.

In 1923 the President of the Canadian National Railways gave a special domestic coal into Ontario, and about 10,000 tons were thus forwarded. Further freight rate of $7.00 per ton for trial movement of a limited quantity of Alberta experimental shipments of about 18,000 tons were sent in 1925; and again in 1926, 75,000 tons were despatched to Ontario from Alberta in view of a threatened shortage of anthracite owing to the coal miners' strike in the Pennsylvania fields: and the Report, p. 26, continued:—

> "The coal that has been forwarded as above stated received a wide distribution in Ontario. In nearly all cases consumers returned favourable reports as to its qualities as shown in practical burning tests."

Subventions.

Since 1926, Dominion Governments both Liberal and Conservative have endeavoured to assist the transportation of Canadian coal, and particularly of coal from the West, into "The acute fuel area" by means of subventions.

(i) By Order in Council P.C. 225, dated 13th February 1926, the Railway Commissioners were directed to consider the "actual" cost of transportation of coal mined in Western Canada into Ontario; it was suggested this transportation should be in spring and early summer, i.e. at a time of the year when the rolling stock of the railways was not mobilised for handling the grain crop of Western Canada; also that it should be by means of full capacity train loads. In September 1927, the Railway Commissioners issued their Report, which was not, however, unanimous, two Commissioners finding such "out of pocket" costs to be $7.22 per ton, while Commissioner Oliver placed it at only $6.50 per ton. In his Minority Report, Mr. Oliver stated:—

> "The railroads agree that they have equipment now idle during six months of every year to enable each to haul a million tons of coal from Alberta to Ontario within the six months period. Assuming that Montreal and Southern Ontario take two million tons of United States anthracite a year, and that the Canadian railroads get an average of $1.50 per ton for hauling it, their total earning is $3,000,000. Canadians of Southern Ontario and Montreal pay to United States miners $16,000,000 for 2 million tons of anthracite coal, plus the cost of haul to the boundary, and then pay Canadian railroads, say, $3,000,000 for distributing it.
>
> "At an average f.o.b. cost at the mine in Alberta of, say, $3.50 per ton with a rail rate of $6.50, there would be a distribution of $20,000,000 of Canadian money amongst Canadians for the same service.
>
> "Having the necessary equipment on hand to move the coal, the railways could not fail to benefit both directly and indirectly from the movement, even though the rate did not pay the per ton mile share of overhead of either of the two systems. There would seem to be at least as good reason for hauling domestic coal from Alberta to Ontario at a rate that would yield less than "inclusive" costs, as there is for hauling passenger, express and mail trains over the same tracks under similar conditions."*

*Board of Railway Commissioners for Canada, Judgments, etc., Vol. XVII, No. 15, p. 467.

The evidence of Sir Henry Thornton, then President of the Canadian National Railways, before the Special Committee on the Fuel Supply of Canada in 1923, has often been quoted:—

> "I can give you—and prove—any transportation costs you want at any time for any purpose, and so can anyone else. It all depends upon how you look at it."*

**Report of Special Committee on the Fuel Supply of Canada,* Ottawa, 1923, p. 52.

But this must not be pressed too far: the argument if applied in turn to various forms of traffic would lead in the end to the conclusion that little if any source would be available on which to draw to meet the overhead charges.

On the other hand, during the present enquiry evidence was tendered from witnesses with Railway experience that coal, from the point of view of railway operation, was a satisfactory load—easy to handle, not involving great risk of loss, and useful as a steady "fill up" for trains short for any reason of a full load.

(ii) The Dominion Government, by Order in Council P.C. 439, dated 16th March 1928, provided during the three years 1928, 1929, and 1930 for further test movements with a view to arriving at a reasonable freight rate per ton for this traffic of Alberta coal to Ontario. This further experiment was expressly based on the importance of encouraging an all Canadian coal movement, and reference was made to Mr. Oliver's minority finding in the report of the Railway Commissioners above referred to. A temporary rate of $6.75 per ton was established, to be effective for a period of three months in each year, the experiment to run for three years so as to secure conclusive evidence of costs. Finally, the Commissioners were authorized "To name what amount, if any, over and above the rate of $6.75 per ton the Board estimates to be due to the Railways", i.e. by way of profit.

(iii) At the end of the three years' experiment, by Order in Council P.C. 1179, dated 18th May 1932, the Board were instructed again to ascertain the out of pocket costs per ton to the Railways of carrying coal from Alberta to Ontario, but in this case there was no direction, as in P.C. 439, to name what amount, if any, the Board estimated to be due to the Railways in addition to the out of pocket costs per ton, that being left entirely to the Government.

After enquiry, at which the Alberta Government was represented, the total out of pocket costs were put at $6.15 per ton to North Bay, and $6.88 to Toronto. This was in excess of the figure of $5.00 per ton which had been hopefully anticipated in the West.

One of the points at issue was the cost involved in the return movement of cars empty when westbound. It was claimed on behalf of Alberta that some return freight would be earned; however, the Board decided that such return cars must be treated on the basis of 100% empty.

It was also urged for Alberta that the two essential factors were a permanent rate, and the reduction of cost which should follow a substantial development of traffic, if a permanent rate were secured: at a rate of $5.00, half a million tons could very reasonably be expected to be moved. The use of Alberta coal was favourably regarded in Ontario, but the Ontario dealers were not likely to provide storage for Alberta coal unless some security were given that the rate would endure.

After the Report of the Board, dated 1st February 1933, had been issued under P.C. 1179, negotiations took place at Ottawa between representatives of Alberta and the Dominion Government.

ZONING.

A "zoning" system,* the principle of which was that Nova Scotia should have earmarked for her own steam coal Canada east of the Island of Montreal, had been pressed at Ottawa: Alberta and Saskatchewan were to be given

*A Zoning Scheme on these lines was put forward by Colonel Villiers in a memorandum dated 27th January, 1933.

Alberta, Saskatchewan and the Province of Manitoba as far east as the Great Lakes: British Columbia was to retain her own Province: Ontario or a major portion of it was to be a "free for all zone", in which any coal that was able to compete would fight for its own trade, but in the closed zones east and west of Ontario no foreign coal was to be admitted, unless it was proved that the consumer was unable to use the Canadian product. It was felt that great administrative difficulties would arise at the points, e.g. in Ontario, where the boundary lines were drawn. Doubt was also expressed whether, under the British North America Act, this Zoning System would be permissable, and in fact it was not proceeded with. This plan would have been of use to Alberta coal to the extent that the Western markets would have been reserved for Western coal; but on the other hand, all subventions for freight rates were to cease, so that the old rate to Toronto of $12.20 per ton would have revived, which would have excluded Alberta coal entirely from the Ontario market.

Eventually negotiations were taken up on behalf of Alberta with the Railway Companies direct, and with the respective Presidents of the C.N.R. and C.P.R.: the Railways made it clear that in their opinion $8.00 per ton was the lowest possible amount that would protect them against loss.

(iv) As a result of these discussions, the Government, by P.C. 740, dated 24th April, 1933, granted assistance at the rate of $2.50 per ton on all coal moved from Alberta to points in Ontario where the rail rate amounts to $8.00 per ton or over, the assistance being payable "out of such sums as may be provided by Parliament" from year to year. Certain conditions were attached; the assistance was only to be available for mines in operation prior to 31st December 1930; and operators were to make full disclosure of all necessary information. The Order applied alike to all grades of coal.

(v) In addition to the above, P.C. 1121, dated 28th May 1934 (superseding P.C. 952 dated 30th May 1933) declared that in the case of coal mined in the Province of Alberta, and in the Crow's Nest district of British Columbia, and shipped to points in the Province of Manitoba and in the Province of Ontario, assistance should be provided as follows:—

(a) If shipped for use by consumers *other than the railways* (1) to points in the Province of Manitoba, by a reduction of one-twelfth of one per cent per ton mile, with a limit of 70c per ton; (2) to points in the Province of Ontario, by a reduction of one-fifth of one cent per ton mile with a limit of $2.00 per ton.

(b) In the case of similar coal purchased *by the railways* for their own use in the Provinces of Manitoba and Ontario, east of and including Carrick, Decimal and Eagle River, by a reduction of one-fifth of one per cent per ton mile with a limit of $2.00 per ton.*

The following, amongst other, conditions were to apply in both cases (a) and (b): the assistance should only be available when Canadian coal was at a disadvantage in competing with foreign coal; and the assistance should not apply to coal when used for household purposes.

Figures of Alberta Coal Moved Under Subvention.

The Dominion Fuel Board give, as on 31st January 1935, the following figures of Alberta coal moved to Ontario under P.C. 740, namely with a sub-

*By P.C. 871, dated 5th April, 1935, this provision was modified as to the area, which was now defined as "that area in the Provinces of Manitoba and Ontario between and including Carrick (Man.), Decimal (Man.), and Eagle River (Ont.), on the Western boundary and Sioux Lookout, Ignace and Fort Frances on the Eastern boundary."

vention of $2.50 per ton, in the last 2 years since that subvention has been in force:—

	Net tons.	Total cost to Government.
1933	30,531	$ 76,326.11
1934	54,868	137,173.22

For the first 9 months of the present year, the figures show a further substantial increase, namely, 1934, 23,990 tons; 1935, 32,522 tons. This increase in 1935 would have been considerably greater had there not been, in the case of two or three Alberta mines interested in supplying the Ontario market, difficulties due either to labour trouble or fire damage during the earlier part of the year.

The Dominion Fuel Board have also furnished, under date 28th October 1935, the following figures of the amounts moved in 1934 under P.C. 740 and P.C. 1121, together with the amount of assistance paid in each case:—

	Net tons moved	Assistance paid.
1. Movements under P.C. 740, all from Alberta, to points in central and east Ontario	54,858	$137,172.22
2. Railway coal from Alberta mines under P.C. 1121:		
Via C.N.R.	22,811	26,764.16
Via C.P.R.	37,980	75,959.45
Total from Alberta	60,791	$102,723.61
Add shipments from B.C. mines in Crow's Nest Pass on C.P.R.	14,910	29,820.85
Total from B.C., Crow's Nest Pass, and Alberta	75,701	$132,544.46
3. Industrial coal moved to points in Manitoba and Western Ontario (exclusive of railway coal); P.C. 1121	98,161	$ 94,081.63
Add shipments from B.C., Crow's Nest Pass, mines	94,535	89,525.36
Total from B.C., Crow's Nest Pass, and Alberta	192,696	$183,606.99
4. Total assisted movements to Manitoba and Ontario:		
From Alberta mines	213,820	$333,977.46
From B.C., Crow's Nest Pass	109,445	119,346.21
TOTAL	323,265	$453,323.67

The cost per ton moved under these subventions is approximately $1.40.

The C.P.R. supply information that coal moved under the subvention is principally used by them at two coaling points in Ontario, namely Eagle River, about 200 miles east of Winnipeg, and Ignace, about 275 miles east of the same point.

Figures supplied by the Dominion Fuel Board show movements of Alberta and B.C., Crow's Nest, coal under subvention to Manitoba and Ontario (exclusive of movements under P.Cs. 439 and 740) as follows:—

	To Manitoba.	To Ontario.
1933	210,829	18,375
1934	213,312	55,085

The publication *Coal Statistics for Canada* for 1934, p. 97, shows the steady growth of this movement of Canadian coal under both assisted rates from 1928 to 1934 as follows:—

Alberta and Crow's Nest, B.C.

1928	1929	1930	1931	1932	1933	1934
32,101	37,115	88,523	204,473	237,784	259,735	323,265

The 55,000 odd tons mainly of domestic coal moved under the $2.50 subvention from Alberta in 1934 was supplied from the following sources (in round figures):—

	Tons.
Domestic coal, 25 mines	32,000
Sub-bituminous coal, 7 mines	20,000
Bituminous coal, 4 mines	3,000

Careful examination of these figures, mine by mine, shows that one or two mines in each case tend to secure a large proportion of the traffic, and the evidence suggests, as is natural, that this is due to close individual attention to the market by those concerned, and in some cases to definite personal or business relationships in Ontario.

National Coal Movement.

Enough has been said above to indicate that the policy of rendering Canada, and especially the "Acute fuel area", more dependent in the future on Canadian, and less on American, resources has, since 1923, received emphatic support from various Governments, representing different political parties, both at Ottawa and in various Provinces. Advocates of Dominion subventions granted for the purpose of stimulating the movement of coal from East or West Canada, from Nova Scotia or Alberta, to the Centre, must be prepared to run the gauntlet of criticism that in fact such subventions tend to benefit one or two Provinces at the expense of the whole country.*

A Commissioner courteously invited from Great Britain to give advice, and that in relation to the coal problems of one Province, naturally must feel a sense of diffidence in dealing with such large issues, and issues which concern the Dominion as a whole; but I hope I may be pardoned if I point out that in this matter of subventions there appear to be two entirely different lines of argument—one based on Economics and the other on Policy.

The argument that the $2.50 subvention puts an unfair burden on the rest of the Dominion is founded on economics pure and simple; even on this ground there are balancing considerations, as pointed out below, to which due weight must be given: but those who, during several years from 1923 to 1932, have framed and carried through the policy of subventions, clearly had in mind Adam Smith's famous dictum that "Security is more than opulence"; and that even if some small burden had to be shouldered by the Dominion (though this was arguable), that was worth incurring in the interests of greater security for the fuel supply of the Dominion as a whole.

Prior to 1933, the subventions were experimental in character and the figures are not comparable; since 1933 the results achieved by the $2.50 subvention, only in force a little over two years, have been by no means negligible, indicating a growth of 80% in that time. This year, the figures show already a further considerable increase.

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*See, for a forcible presentation of the argument in favour of such subventions, *The Case for a Co-ordinated Fuel Policy,* by Professor Gosforth of McGill University, 1928.

In this connection full recognition is due to the Trade Commissioner, Mr. Howard Stutchbury in Edmonton and his Assistant Mr. E. S. Clarry in Toronto, for their skillful and untiring efforts.

The question arises, can any suggestions be made whereby greater development can be secured?

The policy of Alberta coal subventions, directed as it is to the objective of "Canadian coal for Canadian consumers", must look to a substantial development of at least half a million to a million tons. The real difficulties in the way of such development are:—

(i) As already indicated, the want of permanence: this was repeatedly emphasised by many witnesses. The Dominion Fuel Board Report of 1923, already quoted, spoke of the existing prejudice in favour of American anthracite; dealers and consumers in Ontario have found it easier to handle American coal with which they are familiar. If Alberta coal is to find a secure market in the East, dealers must be prepared to put up bins and provide storage: to some extent this difficulty has now been met, but many dealers are still shy of providing storage unless the subvention is assured for a reasonable period. At a meeting of the Domestic Coal Operators Association at Calgary on 17th December 1934, a period of at least 5 years for the present subsidised rate was demanded, preferably to be secured by a Dominion Act of Parliament, as had been done in part in the case of Nova Scotia coal and in the case of the Crow's Nest grain rate.* It is of course to be borne in mind that the consent of the Railway Companies would be essential to the continuance of the $8.00 arrangement, say for 5 years.

(ii) That the $2.50 subvention was not in fact sufficient, certainly not to overcome the initial difficulty of securing an entry for Alberta coal to the Central market. As indicated above, a flat $5.00 rate had been the objective aimed at by those who put forward the case for Alberta in the discussions in 1933, and here again, assuming that it is the definite desire, both of the Dominion and of the Provincial Governments, that the experiment of moving Western coal to the Centre should be vigorously supported, and that the Railway Companies will consent to continue the present arrangement, it is necessary to consider some increase of the subvention, or reduction of the rate, possibly both, at any rate for a period in order finally to overcome temporary prejudices and difficulties of storage.

The Case for Alberta Subventions.

The case for Alberta is very similar to that of the Maritime Provinces, which was dealt with by the Commission presided over by Sir Andrew Duncan in 1928. One of the recommendations of that Commission was assistance for moving Nova Scotia coal to the Centre; that was eventually secured, and to some extent on a permanent basis.

The results in the case of Nova Scotia have, it is believed, been generally admitted to be satisfactory, alike on the grounds of economics and of general

*For Crow's Nest grain rate, see 60-61 Vict., Chap. 5, June, 1897; and for Nova Scotia coal, see Maritime Freight Rates Act, 1927, Domestic Fuel Act, 1927, also Steel Coal Act, 1930; and for subventions, P.C. 1119.

policy: the figures of coal moved in recent years and the amount expended under that subvention are as follows:—*

Year.	Net tons of N.S. coal moved under subvention.	Amount of assistance paid.
1928	113,905	$ 65,600
1929	304,276	205,270
1930	372,029	214,720
1931	401,597	225,137
1932	703,691	538,110
1933	1,480,476	1,476,951
1934	1,814,460	1,720,943

In the case of Nova Scotia there were, it is true, certain long outstanding claims based on assurances given at the time of Confederation, and which came up for settlement at the Enquiry in 1928, and these claims undoubtedly strengthened the case for Nova Scotia for a coal subvention as part of a general settlement.† Until recently, Alberta also had outstanding claims against the Dominion, based on the use made of her resources by the Dominion prior to 1930 when they were handed over to the Province: a settlement of most of Alberta's claims was arrived at in 1935 by agreement for a lump sum payment of five million dollars, but questions as to subsidies were declared to be still outstanding especially in regard to Alberta, and a re-examination of the whole of the subsidy system was suggested by the Commission.‡

The total Dominion subventions on coal for the last 2 years have been:—

1933	$1,923,500
1934	2,261,000

of which the Maritimes received:—

1933	$1,478,000
1934	1,729,000

and Alberta, excluding B.C., Crow's Nest Pass, received:—

1933	$272,300
1934	346,000

and on the basis of the $2.50 subvention per ton for 55,000 tons, Alberta is only credited with $137,000. It is clear, therefore, that as against the Maritimes Alberta has claim for consideration in regard to the amount of subvention paid.

In any case, the tariff revenue of the Dominion Government on coal and coke imports in the same two years, after deducting drawbacks, has been:—

31st March, 1934	$7,400,000
31st March, 1935	8,500,000

The Dominion Revenue derived from this source would justify more liberal treatment for Alberta coal.

Trade Between East and West.

There are other claims as against the Dominion on the basis of economic argument pure and simple, which can in all fairness be set up on behalf of Alberta. First, there is a broad general claim based on the balance of trade

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*Figures supplied by the Dominion Fuel Board.

†See Brief presented on behalf of the Government of Nova Scotia by Professor Norman McL. Rogers to the Royal Commission of Economic Enquiry.

‡*Report of the Royal Commission on the Natural Resources of Alberta*, Ottawa, 1935, pp. 38 and 41.

flowing to and fro between the East and the West. It is by no means easy to get figures representing this flow of Canadian trade between the Prairie Provinces and Quebec and Ontario. The basis of the exchange is simple—the Western Provinces mainly ship grain and coal Eastwards, the vast proportion of the grain traffic being for foreign export; while in return Ontario and Quebec despatch to the West great quantities of manufactured goods; these are largely protected by tariffs, and often by high tariffs, with the result that the farmer or coal miner in the West has to purchase articles which the Eastern manufacturers send him at prices, so the argument runs, inflated and often highly inflated, as the result of protective tariffs, the price of manufactured goods produced under such conditions being generally swollen in proportion to the tariff imposed.

Professor Norman McL. Rogers, now the Hon Norman McL. Rogers, Dominion Minister of Labour, in his Case for Nova Scotia already referred to, presented figures to substantiate this comparison in a table which was referred to by the Hon. J. R. Love in his Budget Speech on 8th March 1935 to the Legislative Assembly of Alberta. As the table is a well-known one, it is not necessary to give the calculations on which it is based and it is sufficient to quote the figures, omitting as irrelevant for the purpose of this comparison the figures for Prince Edward Island, Nova Scotia and New Brunswick:—

1931 *figures.*

	Benefit from Tariff.	Cost of Tariff.	Net loss or gain.	Loss or gain per capita.
Quebec	$132,867,447	$101,171,562	+31,695,885	+11.03
Ontario	220,722,484	168,732,723	+51,989,761	+15.15
Manitoba	19,910,971	29,185,740	— 9,274,769	—13.25
Saskatchewan	3,275,950	29,228,285	—25,952,335	—28.16
Alberta	8,211,148	27,909,396	—19,698,243	—26.93
British Columbia	22,378,571	37,737,247	—15,358,676	—22.33

It will thus be seen that while Quebec and Ontario make a per capita gain of 11.03 and 15.15 respectively, all four Western Provinces indicate a per capita loss, in the case of Alberta as high as 26.93.

The Dominion Statistician, Mr. R. H. Coats, prepared in February 1926* for the Dominion Bureau of Statistics a widely circulated study on the economic position of the Canadian Prairie Provinces in the year 1923, showing in round figures net exports from the Prairie Provinces amounting to 270,000,000 dollars, while imports into the area were approximately 145,000,000 dollars; but the Report went on to indicate the uncertainty of various factors which had to be taken into account. There was a fairly complete record of *quantities* or articles imported by *land* over the Railways; on the other hand, no adequate record was kept of the *values* of articles exchanged between the Provinces, nor was there any adequate record of the articles, and the various quantities of those articles, which were transported by *water*: and the Bureau expressed regret generally that there was no proper estimate possible of quantities and values for trade between these great areas. So far as the gross volume of traffic loaded by the Railways in the Prairie Provinces went, this amounted in the year under review to 20,776,288 tons, whereas freight unloaded by the Railways on stations within the prairie region amounted to 10,870,330 tons, of which 2,492,178 tons represented manufactured and similar products. Excess of freight loaded outwards over freight loaded inwards, therefore, amounted to 9,900,000 odd tons, which

*Mr. Coats published a further Memorandum on the same subject in 1935, and the figures proceed on similar lines.

was almost exactly equivalent to the tonnage of wheat actually shipped out of the Prairie Provinces, as shown by the Railway returns, of 9,580,152 tons, mainly for export abroad: but though these figures are interesting, they give an entirely insufficient picture of the position, as no *values are indicated*. The manufactured and similar products imported into the Western Provinces by rail, though in *weight* only about 10% of the total tonnage exported (or, if the figure of 9½ million tons exported wheat above mentioned be deducted, roughly 22% of the net figure of 10,870,330 tons), are in value probably in excess of the total exports given.

The Alberta Natural Resources Commission received evidence bearing on this point; for instance, in 1930 the products of Canadian manufacturing industries in Quebec and Ontario were over $2,700,000,000, or 80% of the whole Canadian output, while the Prairie Provinces only manufactured $300,000,000 worth, or 9%; and the market for goods manufactured in Quebec and Ontario is admittedly largely in the Western Provinces. Evidence was also submitted to that Commission indicating in the case of individual firms manufacturing, e.g. agricultural implements, clothing, boots, etc., in the East, how large a proportion of their output was purchased by the Prairie Provinces. The proportion has been suggested to be as high in cases as 60%:* it must be borne in mind that the coal mines in the West are themselves heavy purchasers of Eastern machinery, explosives and equipment.

Unemployment Relief.

Unemployment relief and the burden it involves constitutes a second claim which can be urged in favour of Alberta. The total amount contributed to the Provinces by the Dominion to March 31st 1935, under 1930, 1931, 1932, 1933 and 1934 relief legislation, for unemployment and farm relief purposes, was the large sum of $136,574,985.38, of which Alberta received $8,460,753.56, or 6.10%,† not an unfair proportion having regard to the population of the Province which is 7.1% of the population of Canada as a whole. The policy of the Dominion Government has been to contribute approximately 25% of the actual expense incurred for relief, and in addition to that it has done much to provide special work on roads and other developments for those without employment.

The burden of unemployment has had to be carried in Great Britain over a much longer period than elsewhere. Since November 1930 the figures of unemployed, for whom Unemployment Benefit or relief of some kind has had to be provided, have never been under one million, and have risen as high as nearly three millions, though now they are showing a tendency to drop to two millions and under. There has been time, therefore, in Great Britain to try experiments of various kinds with regard not only to relief schemes, but to stimulating or accelerating work so as to increase employment. The experience of Great Britain has clearly established that it is better, wherever possible, to keep a man gainfully occupied in his proper trade, and, if necessary, for Government even to stimulate, or give orders anticipating, work which would not normally be undertaken for some time to come, rather than to transfer men to work for which they are often unfitted, e.g. on roads or in afforestation. Not

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*See *North West Coal Dealer*, January, 1931, p. 20.

†Report of the Dominion Commissioner of Unemployment Relief, 30th March, 1935, p. 49.

only is a better economic result thus obtained, but the morale and outlook of those so assisted is more adequately safeguarded.*

From figures supplied by the Department concerned, there are at the time of writing in the Province approximately 1,000 miners on relief; it is clearly preferable to increase, if possible, the output of the mines and so absorb, either partially or wholly, the 1,000 or so miners now on relief, rather than to transfer them to some new and unfamiliar industrial activity. Curiously, a similar argument has been vigorously pressed by those engaged in the American coal trade: if the Canadian tariff of 75c were abolished, that would mean more American coal sold in Canada, greater employment for mines and miners in America, and consequently a great diminution of those on unemployment relief in the U.S.A.§ It is not at all obvious why such adjustments should be made in Canada in order to help America grapple with her own unemployment problem; on the other hand, there is every reason why Canada should bend all her energies to securing as far as possible that work in the mines should be forthcoming for Canadian unemployed miners.

Additional shipments of 300,000 tons of Alberta coal to Ontario with a 50c increase of the existing subvention, would mean an additional charge on the Dominion Government of $150,000.00, over and above the present subventions.

The average wage rate in the Alberta domestic coal field is about $1.63 per ton. The increased payrolls to miners would, therefore, if additional sales of 300,000 tons were made, amount to $489,000.00: increased shipments of coal would also result in increased payrolls to railway employees. The out-of-pocket costs to the Railway of shipping a ton of Alberta coal to Ontario is $6.88;‡ labour costs represent 60.54% of railway expenditure;† the increased payrolls to railway workers will, on this basis, amount to $1,248,000.00.

The result, therefore, must be to increase employment directly for a large number of miners, and indirectly for many railwaymen and others connected with the production and transportation of Canadian coal: the increased shipments should go a long way to absorb the 1,000 miners and others at present on relief, and at the comparatively small cost of $150,000.00 to the Dominion Government, against which would be set the reductions in Dominion contributions to relief.

There is another aspect of the matter. In Alberta itself the obligation to supply coal to those on relief is considered to fall on the locality, but, in the large industrial centres in Ontario, considerable amounts of coal have had to be purchased in order to supply those on relief with fuel. The Alberta Trade Commissioner in charge of the Toronto office, Mr. Clarry, has been actively pressing on the Ontario authorities during the last two or three years the desirability of purchasing coal for relief from Western sources, and in the case of London, Ont., and other centres these efforts seem recently to have been crowned with considerable success. In view of the efficient service rendered now for some years past, the office of Trade Commissioner should be maintained in Ontario and a reasonably increased appropriation provided.

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*Quite recently the British Government have, on these lines, guaranteed for the four major railway companies issues of new capital to the amount of $150,000,000 for reconstruction and improvement.

§This argument was used by Mr. L. C. Madeira, executive head of the Anthracite Institute, New York, in a statement filed with the U.S. Tariff Commission; *The Ontario Fuel Dealer,* April, 1935, p. 8.

‡See Railway Commission file 2742590, Feb. 1st, 1933.

†Report of Canadian National Railways, 1934.

Analyses and Standards of Coal.

Attempts have been made from time to time to secure definite tables or analyses of Dominion and also of Alberta coal, with a view to establishing standards generally acceptable, both to producers and also to the consuming public. Several such analyses have been attempted, and it is to be regretted that so far no analysis has been able to secure anything like general approval by those engaged in the industry. Mention must be made of three, published as follows:—

1. In 1925, on behalf of the Scientific Research Council of Alberta.
2. In April, 1928, by a Commission presided over by Mr. R. J. Dinning.
3. In 1935, for the Dominion Department of Mines.

A description of each of these is given in some detail in Appendix II.

Possible Further Developments in Ontario.

(i) *Steam Coal.*

From information submitted by the Alberta Trade Commissioner in Toronto, it appears that the market for Alberta steam coal in Northern Ontario was carefully considered in 1932. Some 9 mines were visited, and one or two paper and pulp companies, representing a potential market of some 140,000 tons of industrial coal. At that time the consumption was mainly American and Nova Scotia coal. So far as calorific value is concerned, bituminous coal produced in Alberta would give satisfactory results, but requirements as to maximum ash, moisture content and volatile matter might be difficult to satisfy in several of the undertakings examined. There did seem, however, to be at present a market of at least some 50,000 tons or more, for which the steam coals of Alberta would be able to compete, and where the ash content with mechanical stoking would not be a serious disability.

In a case mentioned recently by a witness before the Commission, a small mine in Northern Ontario used to take annually 4,000 tons of American bituminous coal at $10.00 a ton, or $40,000.00 per annum: the management put in recently new stokers and now with a mixture of 50% Nova Scotia and 50% Alberta steam coal, the consumption has been put on a more economic basis and reduced to 2,500 tons at an average cost of $8.00 a ton, or $20,000.00 per annum: the subventions both in the case of the Nova Scotia and Alberta coal alone made this adjustment possible.

Another large industrial undertaking which in the past has consumed about 40,000 tons annually of American bituminous was said to be now taking 50%, i.e. 20,000 tons, of Nova Scotia coal: the desire of the management, it was stated, is to use entirely Canadian coal, and with a little active canvassing it should be feasible to secure the remaining 50% for Alberta coal: this would give an effective mixture on the plan mentioned above.

Granted a measure of permanence as to the subvention, together with some possible increase of the subvention itself, and given also that the American rates and costs remain unaltered, Alberta bituminous coal should, on the information obtained, have a reasonable chance of securing a considerable portion of this market. Problems of screening and cleaning are also involved, to which, as indicated in Mr. Armour's Report in Chapter III, the steam mines in Alberta are now giving considerable attention.

(ii) *Domestic Coal.*

Several undertakings visited in Northern Ontario by the Trade Commissioner expressed themselves as well pleased with Alberta coal for domestic use.

Efforts in a spirit of co-operation have been made by several of the Alberta domestic coal owners to reduce their prices to the lowest possible point in order to make effective use of the subvention.

The average retail prices* prevailing to the consumer in Toronto for various types of fuel are at the time of writing this Report approximately, and subject to variations, as follows:—

AMERICAN FUELS.

Anthracite.		*Pocahontas.*	
Egg	$14.25	Stove	$11.00
Stove	14.50		
Nut	14.25	*Coke.*	
Pea	12.00	Stove	$11.25

ALBERTA COALS.

Drumheller.		*Coalspur.*	
Lump	$12.00	Lump	$12.50
Stove	11.00	Stove nut	11.50

Saunders Creek.	
Lump	$13.00

Taking these figures as typical, it is clear that Alberta coal in Toronto has some advantage over American anthracite, but is at a disadvantage compared with coke; Alberta coal is about $2.00 to $2.50 per ton lower in price in most cases than American anthracite, but about 50c to 75c per ton higher than coke.

Fifty, sixty and one hundred miles away from Toronto, the situation changes. Toronto, due to its excellent water transportation facilities, which regulate the rail rates on the haulage of coal from the U.S. mines to that point, may be said to possess the minimum price on American imported fuels. At points inland, beyond the distance where trucking of coal is profitable, the Canadian rail haul brings the price of American coal and coke up to a point where the relative retail prices on Alberta coal and competitive fuels undergo a change, giving Alberta a better advantage. For instance, the following are given as the winter prices on American anthracite f.o.b. the Bridge, effective October 1st, 1935:—

Stove at mine	$7.25
Freight to Bridge	2.93
Duty	.50
Excise	.23
Surcharge	.15
	$11.06

For the price of American stove at inland points, the cost of the Canadian freight haul to the various towns has to be added. For instance, the rail haul from the Bridge to Guelph is $1.55 per ton; the cost, therefore, laid down to the retailer in Guelph of American anthracite coal would be:—

F.o.b. Bridge	$11.06
Canadian rail haul to Guelph	1.55
	$12.61

*The prices given for Alberta coal are standard prices, though on occasion doubtless the prices are cut and the coal is sold at lower figures.

The cost of the various Alberta furnace lump f.o.b. Guelph, laid down to the retailer, is:—

Drumheller	$ 9.00
Coalspur	9.50
Saunders Creek	10.00

Similarly, at London the f.o.b. price of American anthracite is:—

At Bridge	$11.06
Canadian rail haul	1.65
	$12.71

while Alberta prices are the same as above and shown an advantage of about $2.50. These are wholesalers' prices: for consumers' prices the retail spread of up to $3.00 must be added.

Information received from Toronto indicates that in order to press the sale of Alberta coal, a sum should be forthcoming, at any rate for several years, for publicity purposes. It is said that when the campaign was started for launching American coke on the Ontario market no less than half a million dollars was expended. Probably in the case of Alberta coal a reasonable sum of, say, $10,000.00 a year used mainly in Ontario for advertising for a period of three or four years, in addition to sums at present provided annually by Government for similar purposes, would achieve satisfactory results.

It should not be forgotten that if an additional 250,000 tons of Alberta coal are sold, that means (if all coal, as would generally be the case, is mined from properties paying 5c a ton royalty to the Government) an increase in income from that source to Government of $12,500.00.

Attempts at publicity have been made in the past and the Government have made grants up to as much as $15,000.00 in a year for this purpose in all markets; the last Government grant was $5,000.00 in 1934-5. These efforts at publicity were largely ineffective, as the money was generally made available through various areas; so far as Ontario was concerned, it was often in effect used competitively to support the claims of one Alberta field as against those of another.

The Publicity Fund suggested should in future be used definitely to press the claims of Alberta coal as such, especially in Ontario, and to make known the Government statement as proposed below.

In two or three cases satisfactory results have been achieved by active operators or distributors who have taken trouble and incurred expense in sending demonstration trucks to travel in Ontario; also to visit the Fall Fairs and some of the big Agricultural Exhibitions.* The Commissioner examined one of these trucks on show in the streets of Ottawa; in the truck, the side of which let down, a small "Quebec" house stove and a central hot air furnace were both in operation, and the methods of consuming lump and egg were being explained. Distributors complain that when they have incurred expense on publicity, other operators or agents come in and take advantage of their efforts: they suggest that the expense of publicity should be borne by the Government, or by the industry as a whole.

It is also suggested that if in addition some efforts could be made in the direction of standardising prices of various grades or kinds of domestic coal, by united action of the operators, with or without Government assistance, this

*See *Western Canada Coal Review*, November, 1934.

would be of value in extending the market. At present the retail dealers are apt to be confused by the various prices prevailing.

Evidence given in the course of the enquiry also suggested that an official wholesale selling organisation in Ontario would be of advantage, and would certainly save money, but it has to be borne in mind that there are well established wholesalers in Ontario who would be hostile to such an arrangement. On the other hand, especially in the rural districts of Northern Ontario, it is very desirable to make use of the local retail dealers who have the confidence of the consumers.

It must be remembered that the $8.00 rate is on the basis of an offer voluntarily put forward by the Railway Companies in 1933; it has never been fixed by the Railway Commissioners, and the only rate fixed by them is the old one of $12.20: any attempt to secure the fixation of the present $8.00 rate by the Commissioners would be bound to affect the whole railway rate structure and raise widespread controversy.

With regard to the arrangement with the Railway Companies themselves and the $8.00 rate, evidence was given in the course of the enquiry on behalf of the Companies that, as was stated in 1933, this $8.00 arrangement was on the low side; on the other hand, as indicated above, the "Actual" Costs had been ascertained by the Commissioner as from $6.88 to $7.22 a ton to Toronto, and information was also given in evidence that there was a competition between those representing the Railway Companies to secure coal traffic at the $8.00 rate: it does not appear, however, therefore, that the traffic at that rate can be entirely unremunerative.

In these circumstances, and with a view to the development of a substantial sale of Alberta coal in Ontario within the next few years, the Government should approach the Railway Companies and ask for a friendly assurance that the arrangement would be continued say for five years, and further that a reduction for the same period of 50c of the present agreed $8.00 charge should be conceded, such reduction to be reconsidered at the end of that period.

The Dominion Government should also be approached in a similar spirit and asked for an assurance that the $2.50 subvention would also be continued for 5 years; and in addition that to overcome temporary difficulties of storage, etc., an increase of 50c should be granted for the same period. If at the end of 5 years the trade was established and a growth of, say, an additional quarter to half a million tons secured, then the 50c additional subvention should be reconsidered.

Assuming that the Dominion Government and the Railway Companies are prepared to put the $8.00 rate on a satisfactory basis on the lines proposed, it is clear that the operators, who stand to benefit substantially, should in their own interests do all in their power to co-operate with the Government so as to secure the best results; and these can only be attained if the following difficulties can be overcome:—

(i) In 1923 when labour troubles in America had the effect of taking American anthracite off the Ontario market, Alberta coal had a good opportunity, but that was in some cases thrown away by coal from inferior areas being allowed to be shipped. This difficulty has to a large extent now been in practice overcome; the grades of coal suitable for Ontario have in fact become established there according to consumers' preference, which eventually must be the final test; but even so it is still desirable that steps should be taken by the Government, through the Minister of Lands and Mines after consultation with the operators,

to publish a statement as to the various types of Alberta coal for the Ontario market, and the purposes for which they are suitable: this statement should take various factors into account, not only, e.g. calorific value, ash content, moisture, etc., but also friability, storing qualities, average price of various types of coal, best methods of handling for consumption, and so on: such a statement would give confidence to the consumer in Ontario. The friendly help and co-operation of the Ontario Government should, as in the past, also be secured.

(ii) In the same way, the Minister of Lands and Mines should take steps to consider the problem of uniform description of grades of coal, preferably by trade names and areas; and uniform standards of size for each district. In the Drumheller field in actual practice, the operators have accepted a general arrangement that no lump coal in excess of a 4″ screen shall be marketed; similarly in the Lethbridge field the limit is a 3″ screen. In addition, the Ontario dealers often demand a grate or cobble size not less than 3″ or over 10″: this and similar requirements will need careful consideration.

(iii) The methods of preparation of coal for the Ontario market also require examination, (a) as to elimination of slack, for which screening is necessary, involving proper screening plant: (b) as to impurities; adequate hand picking to remove impurities is a necessary condition.

Unless coal is properly screened and reasonably free from impurity, it should not be available for movement under the subvention: it is fair to say that less difficulty is arising in these two respects than in previous years.

As indicated above, some publicity is necessary, at any rate for a period, and for this Government funds will be required; proposals are, however, made in Chapter VI for raising a fund to promote the general welfare of the industry, and if this is established a portion of the fund should, it is proposed, be applied to publicity.

Finally, what is said in the Chapter on *Regulation* as to Government control over the opening of new pits, at any rate for a period, must be borne in mind, though it is important to remember that both the applicable subventions, under P.C. 740 and P.C. 1121, are only available in the case of pits in operation prior to 31st December 1930. Efforts to maintain, with the co-operation of the owners, a price structure, has also application in this connection. Co-operation by the colliery owners along all the lines above indicated is essential if success is to be achieved, and such co-operation may well be made a condition precedent by the Dominion and Alberta Governments.

Recommendations.

In view of the benefits which should accrue not only to the coal industry in Alberta, but also to the Province as a whole if, say, an additional half a million tons of coal could eventually be marketed in Ontario, it is of first importance that the Government and all interested, whether directly or indirectly, in the coal industry should combine in a determined effort to secure for Alberta coal an effective entry into the Ontario market.

I Therefore Recommend:

1. That the Railway Companies, in connection with P.C. 740, and the subvention thereunder, be asked to give a friendly assurance, on the lines known as a gentleman's agreement, that the arrangement shall be continued say for five years; and further that a reduction for the same period of 50c off the present charge of $8.00 should be conceded.

2. That the Dominion Government similarly be asked for an assurance that the $2.50 subvention will be continued for five years: and with an increase of 50c for the same period, to overcome temporary initial difficulties, the increase to be reconsidered at the end of five years, if a substantial additional traffic has been by that time secured.

3. That in view of the benefits likely to accrue to the industry:—

(a) Steps should be taken by the Minister of Lands and Mines after consultation with the operators, for determining the types of coal best suited for shipment to Ontario; and for preparation of an official statement for that purpose.

(b) Steps should also be taken by the Minister of Lands and Mines, after consultation with the operators, to establish more uniform description of grades of coal and more uniform standards of size for each district.

(c) The Government should be prepared to contribute an additional annual sum up to $10,000.00 for publicity mainly in Ontario for the next 5 years; or until such time as a Coal Industry Welfare Fund is constituted, and is able to make contributions for the purpose of publicity.

(d) The Minister of Lands and Mines should take steps to assure himself of the acceptance of the above proposals by a substantial majority of the operators in the various districts or areas affected.

10. Conclusion.

Treaty arrangements have recently been concluded with the United States for some friendly and reciprocal adjustment of tariffs. These are matters of high policy, in connection with which a visitor from Great Britain must naturally feel hesitation in making even a suggestion: but in any future negotiations on similar lines the danger of dependency on U.S. supplies, so vividly felt in 1923, might again become matter for consideration. If so, the figures of American shipments into Canada must become of importance.

In the acute fuel area, Quebec and Ontario, the Dominion Fuel Board Chart shows the consumption for 1934 to have been, from all sources, 4½ million tons for Quebec and nearly 11½ millions for Ontario, or approximately 16 millions in all: at present the U.S.A. send in to Quebec about 1¼ million tons, and into Ontario nearly 10 millions, or a total of nearly 12 million tons. Canada shipped into the same area in 1934 about 3 million tons.

There is here a considerable market which as trade improves is probably capable of expansion: a considerable share of it may well remain available for American coal, but Canada is not precluded from bringing to the notice of her friendly neighbour considerations of her own security, and it would hardly be unreasonable to suggest that, say, at least a quarter of this market, or 4 million tons—one million more than at present—should be reserved for Canadian coal: this 4 millions would represent a substantial quota of the total consumption; a regular traffic in Canadian coal into the central market would thus be established, and would be capable of rapid expansion from Canadian mines should at any time the American supply be again restricted or fail altogether.

On similar lines and in order to safeguard her agriculture and the life of the nation, Great Britain has recently been driven to impose quota restrictions on imports of agricultural products.

CHAPTER VI.

MINE WORKMEN AND LABOUR RELATIONS.

Many matters dealt with in the Evans Report under the general heading above do not appear at the moment to involve questions of pressing urgency, and therefore need not occupy attention in this Report. There are, however, matters on which evidence was given at the present enquiry and to which reference must accordingly be made.

1. Composition of the Working Force.

(i) *Persons Engaged.*

The average figures of the number of persons employed in the coal-mines in Alberta since 1924 are previously given: those on the pay-roll on 31st December each year are as follows:—

On Pay-roll at 31st December.

	Inside.	Outside.	Total.
1925	8,536	2,640	11,176
1926	8,669	2,696	11,365
1927	8,856	2,783	11,639
1928	8,727	2,746	11,473
1929	8,815	2,705	11,520
1930	8,625	2,574	11,199
1931	7,500	2,405	9,905
1932	7,825	2,471	10,296
1933	7,627	2,457	10,084
1934	7,288	2,367	9,655

The total average labour force, employed throughout the year, is given in Chapter III above as, in 1934, 7,143, and has therefore remained (subject to an increase during the boom period of 1927 to 1930) substantially at the same figure as in 1924, when it was 7,317; but the number on the pay-roll on the 31st December, which in 1924 was 12,061, is now given as only 9,655.

(ii) *Too Many Workmen.*

It is obvious now, just as it was 10 years ago, that in fact the industry is not able to provide continuous work for all the men engaged in it. Owing to seasonal and other conditions, particularly in the domestic field, for the six summer months miners do not get, on the average, more than approximately one day's work a week, and a large number do not get as much. The problem is one of maximum and minimum periods of output; a labour force sufficient to carry the peak load of employment in the winter is clearly too large for a period of minimum output in the summer. Every endeavour should be made to grapple with this problem; undoubtedly the labour force at present, especially in the domestic field, suffers great hardship during the summer when wages are cut down almost to the vanishing point.

First, operators with the help of big consumers should do their best to spread orders throughout the year; in the steam coal-fields evidence was given that the Railway Companies have been doing their best to distribute their purchases so far as possible evenly over the year; but in the domestic fields, where the demand is only acute during the winter and where storage facilities either in private houses or in dealers' yards are limited, the vicious cycle of

idleness during the summer and over pressure of work during the winter is difficult, under present conditions, to remedy.

Secondly, as will be indicated in the Chapter on *Regulation,* the policy of amalgamation of smaller pits so as to form larger producing units must be seriously considered. At Lethbridge and in the Crow's Nest Pass amalgamation, or re-organisation tending in that direction, has already come into being. This naturally entails the consideration of reduction of the man force employed; the general object in view in amalgamation is economy of working, mainly by operating the more efficient and therefore more economical mines, and also by securing greater continuity of work for the mines operated. As indicated elsewhere, there is a loss of probably some 40c per ton at present on coal won in the Alberta fields, owing to lost time, and the high proportion of overhead charges when only a day or two a week is worked instead of full time operation. Concentration may and probably will in some degree involve diminution of the labour force, but it also carries with it the boon of decasualisation of those employed.

In Nova Scotia, where the Duncan Report of 1932 recommended re-organisation, closing of certain pits and more intensive and continuous working of others, the issue had to be faced that the labour force would be reduced very considerably, but those still employed would secure more continuous work. Proverbially, "Half a loaf is better than no bread," but there are few who have the best interests of labour at heart who would deny that the objective to be aimed at is the abolition of casual labour conditions and the promotion of continuous work, subject always to this, that during periods of adjustment, every effort must be made to take care of those temporarily thrown out of employment until such time as they can secure work elsewhere.

Mr. Conroy, representing the Local at Drumheller, frankly admitted that in his view the policy above indicated was the right one. Mr. Pattinson at Mountain Park concurred, subject to this, that concentration and decasualisation should, at first at any rate, proceed only so far as to secure a decent standard of wage to the miners.*

2. Operators' Organisations.

At the time of the Evans Report, the Western Canada Coal Operators Association had recently been disbanded; it had functioned for a period of nearly 20 years, and had undoubtedly discharged a useful purpose, consisting as it did of the representatives of some 26 mines, controlling the output of close on 4½ million tons, or 70% of the total output of the Province at that time. It is not necessary to go into the reasons why the Association was disbanded: the principal cause was that several members had dropped out owing to the fact that their employees had withdrawn from the United Mine Workers of America, whereas the Association as a whole had an agreement with that body. Though the Association as such has come to an end, informally at any rate the steam coal operators continue to confer with a view to joint action on occasions.

Further, there was at one time a Northern Alberta Coal Operators Association, centered largely in Edmonton. A group of ten Edmonton operators were represented before the present Commission, and are associated for the purpose of considering questions of marketing, etc.

Similarly, in the Drumheller Valley the operators meet in conference from time to time and, as indicated in the Chapter on *Regulation,* have an association

*Other leaders of Labour gave evidence on similar lines.

which has attempted joint action for the purpose of securing a Code, for pooling output, and so on.

In an industry of this character the ideal undoubtedly is that there should be strong and responsible associations of operators on one side and of workers on the other; and it is unfortunate that no such association of operators exists. The interests of the domestic coal operators and of those handling steam coal to some extent proceed on different lines; at the same time, there are instances (for example where negotiations with the Government or with the miners are concerned) when they have a common interest.

In various portions of this Report recommendations are made that the Government should take action after consulting the operators as a body, and in the absence of any representative association it is not easy for such consultation to take place on organised and proper lines. It is desirable that an Association should come into existence representing the whole of the operators of the Province; it would naturally fall into two sections, (a) the steam coal operators, and (b) the domestic and sub-bituminous operators, who could each meet separately for the consideration of matters relating only to their own branch of the industry, but could confer and act together with regard to matters relating to the industry as a whole.

I Therefore Recommend that the Minister of Lands and Mines should, after consultation with the Advisory Committee proposed to be set up under transferred powers of Part III of The Department of Trade and Industry Act 1934, invite a conference of the operators in the Province with a view to constituting an Operators' Association for the Province, with separate branches for (a) Steam and (b) Domestic Coal.

3. Labour Organisations.

It is not necessary to examine the constitution or relations of the various labour organisations in the Province. The oldest is that represented by District 18 of the United Mine Workers of America; the Mine Workers Union of Canada is also an important labour organisation, which came into existence about 1924; and there are various other local groups or associations of the workers.

4. Wages and Working Conditions.

No particular matters of major importance relating to agreements between operators and workers were brought to the notice of the Commission. The answers to Questionnaires from some Locals suggested the total abolition of payment on a contract basis, but this was not seriously pressed; and in view of the fact that payment on this basis is generally accepted in the coal-mining industry in most parts of the world, and that apparently though abolished in Russia, it has been restored even there, such a proposal hardly calls for serious consideration.

As to cost of living, evidence was given by several representatives of the workers that the cost of living for a man and wife and average family could not be put at less than $1,700 or rather more, this figure being arrived at on the basis of the maximum pension allowed in connection with War disability.

Certain points mentioned below on which evidence was given should be dealt with, if possible, at an early date, so as to avoid friction and discontent.

Minimum Wage.

Replies of several miners and evidence given on their behalf proposed a minimum wage in the place of contract labour; it was alleged that men on contract were often taken down the pit and kept there without proper opportunity being given by the management to work at the face, and so a full contract wage per shift was not secured. In British experience it has been possible to make provision for a minimum wage to underpin the contract rate, and proposals for such a minimum would constitute fair matter for discussion when next the agreements between the operators and miners come up for revision.

Minimum Wage in Small Mines.

In areas in the domestic fields where small mines often employ only three or four miners, wages and conditions, according to the evidence, are frequently unsatisfactory. A similar difficulty arose in Great Britain in the early part of the century, in several unorganised small industries, especially women's industries, operated under sweated conditions. Chain making at Cradley Heath, in the metal trade area near Birmingham, was being carried on largely by women, under bad conditions and with sweated wages and rates; a Trade Board, consisting of equal representation of employers and workers with a third impartial element appointed by the Minister of Labour, was set up accordingly to regulate wages and conditions for the chain workers, and this Trade Board machinery was made capable of extension to other branches of industry where similar conditions could, after enquiry, be proved to exist. There are now well over two millions of workers in Great Britain whose conditions and wages are regulated by Trade Boards.

Few, if any, of the miners in small pits in Alberta are organised or belong to a union.

The Minister should take steps accordingly to deal with wages in small mines as recommended in Chapter VII below: Wages (and hours, if necessary,) can be regulated under the powers conferred by The Department of Trade and Industry Act, 1934, Secs. 5 and 6: but as consent of a large proportion of employers is required, these provisions may not be sufficient, and special legislation may be necessary.

Payment by Measurement or Weight.

This matter was investigated by the Evans Commission, and the U.M.W. of A. advocate the payment by weight as part of their general programme. In the case of one bituminous mine, complaints were made by the men that the method of payment was unfair to them, on the ground that it was by measurement on the basis of the space from which the coal had been extracted, and not by weight; that in other mines in the same area the payment was by weight in the ordinary way, and that they desired to have that method adopted at the mine in question. Evidence on the other hand was given on behalf of the operators to the effect (a) that under the conditions of the mine, payment by weight was difficult; and (b) that in fact, so far from the men losing by this method, they were in reality the gainers: they further stated that they had, a year or two previously, made the men an offer that they would endeavour to institute payment by weight for a certain section of the mine, where the operators thought it would be feasible, but that the men had rejected it.

In view of the fact that this problem has been under discussion now for the last ten years in the industry, it is unfortunate that the difficulty still persists.

It is a matter which the Minister would do well to consider wih his Advisory Committee, with a view to recommending proposals for a settlement.

Wash-houses.

The provision of wash-houses is required by law, and generally speaking the requirements of the law in this respect seem in the case of the mines visited to be reasonably carried out; at the time of the Evans Commission, numerous complaints were received from the miners as to insufficient accommodation in the wash-houses, but little if any attention was drawn to this point by the miners' witnesses in the present enquiry. It may therefore be assumed that, generally speaking, wash-house accommodation of a more satisfactory character has been gradually provided during the last ten years.

In one case, however, in a closed camp the accommodation in connection with a large and successful mine was unsatisfactory and inadequate. This was not denied by the mangement, who had within the last year or so given assurances that a better wash-house would be provided. The colliery in question is spending large sums on development, and should take steps at an early date, by the expenditure of a comparatively small sum, to remove a cause of friction and dissatisfaction.

5. Housing.

The Evans Commission summarised the condition of housing in the various districts: and inspection of houses in the areas visited, and questions addressed to the Medical Officers during the present enquiry, disclosed that the conditions as to housing were very much the same as ten years ago.

In the Crow's Nest Pass, with certain exceptions, housing conditions were not inadequate. The same was true of Canmore, apart from difficulties between the Company's townsite on one side of the river and an apparently independent townsite on the other. In Lethbridge again the living conditions in most of the mining camps were not unreasonable, but in Drumheller conditions were in many areas unsatisfactory; they were described ten years ago as "some of the worst living and housing conditions within the Province." Some improvement seems to have taken place within the town limits of Drumheller itself, but in areas outside the conditions remain thoroughly unsatisfactory, and shacks and lean-tos unfit for human habitation are being occupied. Not only does the housing in this area require improvement, but there are also serious complains with regard to the water supply and sanitation.

Criticism was made at the enquiries at Edmonton of housing in the Beverley district, but on inspection these complaints seemed exaggerated. Water, it is true, was not generally laid on to the houses, but the supply seemed good and the houses were reasonably adequate and generally had the advantage of a garden or even small farm lands attached.

In the closed camps better provision on the whole seemed, so far as inspection was made during the present enquiry, to be made for housing. Nordegg in particular was well laid out, and the Company had in the early days taken the trouble to secure the advice of an expert in town planning—a policy which might well be pursued by other companies when laying out closed camps. The layout and housing provision at Mountain Park was also satisfactory.

With regard to water supply, better provision should be made throughout the various districts for the laying on of water direct to the houses, and here

the closed camps might well give a lead to the other areas, as they have done in the matter of housing.

As to sanitation, the conditions (especially in Drumheller) leave much to be desired. Generally speaking, the sanitary arrangements are by means of small outside privies, and in many cases no provision is made for the removal of refuse, pits being simply sealed up and new pits opened alongside; the recommendation of the Evans Commission that moveable boxes should always be used is still largely ignored. In the circumstances, it is surprising that there have been no epidemics, but on this point the Medical Officers were clear; the dry atmosphere and the sandy soil in many camps have probably acted as preventives; one medical witness himself expressed astonishment that the insanitary conditions did not result in serious outbreaks.

Generally, a determined effort should be made to improve the housing and living conditions throughout the mining districts. In the early days of mining in the Province, when pits were being opened rapidly, usually in the mountains and far from civilization, the housing conditions inevitably were meagre and usually took the form of bunk-houses; but now that the mining industry is well established, and (certainly in the case of the bituminous mines) profits have been realised for a considerable period, efforts should be made to raise the general standard.

Evidence was given that, at any rate in the case of non-Anglo-Saxons, miners would often prefer to rent a small strip of barren land and erect the barest shack, with a view to scraping savings together and remitting every cent to parents in a foreign home, rather than spending $7 or $8 a month on decent housing or "baching" accommodation. A time arrives, however, when in its own interest the community should do its best to enforce a reasonably decent standard of housing accommodation, and responsibility should be thrown on the municipal or health or town-planning authorities to see that the standard is adhered to.

6. Closed Camps.

It was interesting to find that in several of the closed camps effective systems of group insurance on modern lines were in operation: also that generally speaking, as already indicated, the housing conditions in the closed camps are better than elsewhere: but difficulties arise due to the special circumstances of the camps.

Access.

All the closed mining camps in the Province are located upon Forest Reserves, established under the authority of The Alberta Forest Reserves Act (1931, Ch. 44). Under the regulations now in force, the Minister of Lands and Mines may lease lands for mining claims, and must approve the terms of the lease.

Under the terms of the standard lease now in force, the lessee must enter into a covenant to comply with the provisions of various Provincial Acts affecting the industry, such as The Coal-mines Regulation Act, The Coal Miners' Wages Security Act, etc.: the lessee must also permit every member of the public free access at all times during the day, whether travelling on foot or with vehicles, over any street or lane upon the lands leased. Further, the lessee covenants not to assign, transfer or sublet any portion of the premises without the consent of the Minister of Lands and Mines.

As to access, the provisions of the Private Streets Act (1932, Ch. 54) also apply to closed camps. It is worth emphasising this point, as in the course of

the enquiry it was clear there was a good deal of misunderstanding; under the above Act access is secured to the public to any camp or other settlement where there are ten houses or more in the street.

MONOPOLY.

This raises the issue of the ownership of all land and buildings within the comp by the Company, including miners' houses, bunk-houses, recreation hall, stores, etc. In some of the closed camps permission is given to miners to lease land and erect their own houses, the Companies often giving generous terms with regard to provision of materials, but leases of houses to the miners, whether of premises owned by the Company or of premises which the miners themselves have built often contain severe restrictions on the user of the house and even, in the case of a house built and owned by a miner, give the legal right to resume possession of the house somewhat arbitrarily, and without payment of compensation. Even if the terms of the lease have not been strictly adhered to—(for instance a clause in a lease forbidding meetings to be held in the house) —the miner's property in the house should not be subject to confiscation arbitrarily, and without compensation.

Generally speaking, the colliery company when it assumes the double rôle of managing the mine and owning the miners' houses, exposes itself to difficulties. Suspicion is apt to be aroused where the Company owns all the stores, hotels or eating houses in a closed camp. There are circumstances, certainly in the early days of a new pit opened up in a remote district, when the Company is bound to make provision on these lines, but anything in the way of a monopoly is a mistake, and companies with closed camps would avoid a great deal of often entirely unfounded suspicion if they were prepared to give reasonable facilities for men to build and own their own houses, and for provision of stores and eating houses independently owned or leased.

One hundred years ago or more, payment of wages partly by goods compulsorily purchased at exorbitant prices from stores owned by the management, generally known as "truck", was a crying evil in Great Britain, and was put down by a series of Acts known as the "Truck Acts". Anything in the way of a Company-owned monopoly of store or eating house accommodation savours of the evils of "truck" and should be avoided. It is true that even in remote camps the railway affords facilities for mail order service of groceries and so on, from the big cities, but the mail order service requires cash payment, and that a miner is not always able to provide; in addition, the evidence showed that there was a suspicion in the minds of many miners that if they did not deal at the Company's store in a closed camp, they would me marked men and liable to dismissal in consequence. Probably such suspicions are unfounded, but they do exist and companies in closed camps will be well advised to take every step in their power to dispel such suspicions.

In some cases evidence was given before the Commission that prices at the Company's store were on an exorbitant scale. In three cases lists of prices were submitted, and steps taken to have the prices checked by store managers in small adjacent towns as well as by managers in big stores in the cities. Allowance must of course be made for increase of price due to the cost of transit to a remote village in the mountains; generally speaking the lists when checked showed that the prices in the Companies' stores in question were not unreasonable, allowance being made for freight; but in certain instances the prices were reported upon as being unreasonable.

Education.

In most of the closed camps the Company is directly responsible for educational facilities, sometimes imposing a levy for the purpose, and on occasion bearing all or most of the cost. These arrangements work out on the whole generously for the miners and their children; in one case complaints were made that the provision for educational facilities by the Company was of a meagre description and for only three or four months in the year; the educational authorities, however, had taken note of this case, and it was understood that better provision will be made in the future.

General.

In view of some of the difficulties above mentioned, the Minister of Lands and Mines should consider, after consultation with his Advisory Committee, the possibility of improvement in the position of closed camps in the future in the following respects:—

(a) With regard to the housing accommodation, the requirement of provisions for leasing land to miners who desire to build their own houses, the lease to be subject to reasonable rent and conditions, to be approved by the Minister.

(b) Retention by the Government of full rights of granting leases in the camp, either to miners themselves, or to others, such as intending storekeepers.

7. Workmen's Compensation.

The Workmen's Compensation Board is a Commission consisting of three Commissioners: it is appointed by parliament for a number of years and is not directly under a Minister.

The Workmen's Compensation Board is concerned with the administration of compensation for accidents arising from the various industries that are carried on in the Province.

The Mines Branch reports to the Workmen's Compensation Board as to the opening of new mines, and supplies other relevant information so as to enable the Board to levy assessments.

When accidents occur, the Mines Branch conducts the investigation, always bearing in mind the compensation aspect of any accident: the Mines Branch also makes various reports for the Board, and in all cases of fatal accidents furnishes the Board with a copy of the evidence taken at the inquiry.

It was suggested in evidence at one sitting of this Commission that the Workmen's Compensation Board should appoint safety inspectors: this is not desirable and might result in divided responsibility which is always dangerous: coal operators should have undivided responsibility placed on them for the safety of those they employ.

The Mines Branch supplied information to the Commission that efforts have been made to induce operators and workmen to adopt which is known as "safety clothing", namely hard hats, safety shoes, gloves, goggles and protective glasses; in many cases the men say the extra expense is not justified by the risk run. The operators inclined to adopt "safety first" methods are not encouraged to do so, as their Workmen's Compensation assessment is the same whether they adopt such additional precautions or not.

The Workmen's Compensation Board should give encouragement to the adoption of "safety first" methods by a differential rating system on the lines

adopted by commercial insurance companies; a differential levy, lower for mines with a good accident record, would encourage mines to develop "safety first" methods.

In Great Britain the Safety in Mines Research Board has been carrying on investigations and in the States the U.S. Bureau of Mines does similar work: there is no similar body in Alberta and improvements affecting safety have to be made on the initiative of individual inspectors or mine managers.

Many workmen are foreigners and it was stated in evidence that they often do not properly understand rules and regulations. A safety first campaign should be organised in the larger mining centres: the Workmen's Compensation Board might well undertake the small expense involved, and mine inspectors and mine managers should co-operate and give assistance in lecturing and promoting such a campaign.

Though further effort in the promotion of safety methods is desirable, it is satisfactory that statistics show in the last few years a steady improvement and since 1929 the fatal accidents have fallen from 31 to 15. In comparison with British Columbia and Great Britain, the Alberta figures since 1929 also indicate satisfactory results:—

Comparison of Fatal Accidents per 1,000,000 *tons, and per* 1,000 *Men Employed,* 1929 *to* 1934.

	1929	1930	1931	1932	1933	1934
ALBERTA:						
Number	31	11	16	11	6	15
Per 1,000,000 Tons	4.34	1.91	3.51	2.26	1.27	3.14
Per 1,000 Men Employed	3.24	1.24	1.98	1.40	0.75	1.91
BRITISH COLUMBIA:						
Number	12	54	5	8	3	6
Per 1,000,000 Tons	4.75	25.54	2.61	4.65	2.11	4.07
Per 1,000 Men Employed	2.38	11.62	1.22	2.21	0.97	2.07
GREAT BRITAIN:						
Per 1,000,000 Tons	3.62	3.60	3.41	3.69	3.46	4.22
Per 1,000 Men Employed	1.11	1.06	0.98	1.06	1.03	1.34

The Chief Inspector of Mines, who took office in 1928, is to be congratulated on his efforts in promoting better safety conditions.

Certain cases of serious chronic disability were brought to the notice of the Commission in the Crow's Nest Pass district; official information was subsequently given that these and other similar chronic cases are being made the subject of enquiry at an early date.

8. Unemployment Insurance.

In the course of the enquiry, the Act passed at Ottawa in June 1935 to make provision for Unemployment Insurance was severely criticised by representatives of the miners: they complained it could never in fact be of use to the miners in Alberta as owing to slackness, or absence of work, in the summer for the majority of miners, it was impossible for them to make the required 40

weekly payments: Sec. 20(1) of the Act, however, provides that the 40 payments are not required to be *consecutive,* or made all in one year, but may be spread over two years, so the complaint is not justified.

There is also provision, Sec. 20(4), as in the British Act of 1920, for payment under certain conditions of part benefit for broken time, e.g. 3 days a week benefit if only 3 days in a week are worked: such a provision should be of real assistance to the mining industry in Alberta.

It is understood at the time of writing that doubts have been raised whether the Act itself is *ultra vires* or not, and that this issue has been referred to the Courts for consideration: it is not necessary therefore at this stage to consider the Act in greater detail, or its application to the mining industry.

9. Mine Rescue Work.

The organisation of mine rescue work was started in 1912 as a result of explosions in the Crow's Nest Pass; up to that time no facilities for rescue work had been provided.

At its inception, the work was carried on by the Government under the direction of the Mines Branch, and of the Chief Inspector of Mines. The coal operators paid contributions for the rescue service by a levy on a tonnage basis, and were mainly responsible, apart originally from some Government contribution, for the cost of the service.

Four years later, the Workmen's Compensation Board was formed; the Chief Inspector of Mines became Chairman of this Board, and also continued to act in the former capacity; the Chairmanship of the Board is now independent of the office of Chief Inspector.

As a matter of convenience, the levy for mine rescue work has from the first formed part of the assessment for Compensation. In latter years provision for rescue work appears to have fallen below a proper standard, and there has been public demand for some time that the work should be placed directly under the Mines Branch, in view of the close connection of Mine Rescue work with that of the Mines Branch. The proposal was considered by a Committee in 1929 and it was agreed that the work should properly be placed under the Mines Branch and a general superintendent appointed: this appointment was made, but the work continued under the Workmen's Compensation Board.

A resolution was carried unanimously in the last Session of the Legislature that the rescue service be transferred from the Board to the Mines Branch, but difficulties have arisen as to the payment over of portion of the levy by the Board to the Government for the carrying on of this work.

Evidence given in the course of the enquiry supported the case for transfer.

The organisation at present is as follows: there is one General Superintendent with an office in Calgary, who visits the stations from time to time, and also carries on first aid work. There are four mine rescue cars, each with a full time Superintendent in charge, located at Blairmore, Drumheller, Edmonton and Cadomin. There are also three mine rescue stations, at Lethbridge, Canmore and Nordegg; the first named has a full time Superintendent and the other two have part-time Superintendents.

The Commissioner or Mr. Armour had opportunity of inspecting the rescue car and equipment at Blairmore and other places; some of the cars are out of date; that at Blairmore would be difficult to move, and a station should

certainly be erected there with a truck service to transport the equipment as required from place to place; and the situation is similar at Drumheller.

The Edmonton car is old fashioned, and some re-organisation there is also required. The Cadomin car appears to be not unsatisfactory, but proper means of transportation are lacking: to cover the other mines in the district, either proper transport or definite sub-stations should be provided.

The stations at Lethbridge, Canmore and Nordegg appear to be satisfactory.

The whole of the service is voluntary and by men trained in the use of the apparatus; they receive one training a month and are paid $2.00 per training. The cars are equipped with the "Proto" apparatus made by Siebe, Gorman Ltd., London, England, which is all British made and has been found reliable. The gas detectors, reviving apparatus and other equipment is satisfactory.

I Recommend:

1. That arrangements be made as soon as possible for the transfer of Mine Rescue work from the Workmen's Compensation Board to the Mines Branch; and for a transfer of a proper proportion of the Board's levy to meet the charge now to be undertaken by the Government.

2. That steps be taken forthwith for the provision of proper permanent Rescue Stations at Blairmore and Drumheller, and for re-organisation at Edmonton and Cadomin.

10. Miners' Certificates.

The Evans Commission, p. 231, drew attention to the danger of employing green men below ground and recommend that, following the example of British Columbia, a certificate of competency should be required before a man could be employed under ground at the coal face.

During the Session 1926-1927 the Provincial Government, following the recommendations of the Evans Commission, passed legislation* requiring any person employed at the coal face in a coal mine in Alberta to hold a certificate.

The qualifications necessary to enable a candidate to sit for examination are:

(a) That he is at least eighteen years of age;

(b) That he has sufficient knowledge of the English language to enable him to give and understand working directions and warnings in English;

(c) That he has been employed in some capacity underground in a coal-mine for at least one year prior to his application for such certificate; and

(d) That he satisfies the District Board upon examination as to his ability as a coal-miner.

Examination Boards were set up in the different districts during the summer of 1927, and the Act became operative. The Act in Alberta differed from that of British Columbia in that it left no opportunity for a man to work at the coal face until he had a certificate, with the somewhat absurd result that a man had to give evidence of being able to take care of himself at the coal face, yet the Act prohibited and prevented him from working and being trained there.

Miners in Western Canada have for many years objected to what is known as the back hand system, that is, a helper working under a miner. They claimed this system led to exploitation by the operators.

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*See *The Coal-mines Regulation Act,* 1930, c. 24, section 42.

When the new Coal-mines Regulation Act was introduced in 1929-30 the draft Bill contained proposals for an A and a B Certificate.

The A Certificate was intended to cover all certificates already issued, and was to be the final miner's certificate: the holder would be qualified to take full charge of any working place, or act as a timberman.

The B Certificate was to be granted to a person after examination who had six months' experience under ground in a coal-mine: the holder would be qualified and permitted to work at the coal face under the charge of a miner who was the holder of an A or final Certificate. After six months' experience at the coal face, he would be qualified to sit for the examination for his final A Certificate.

In discussions on the Bill, both Labour and the Operators raised objections to this proposal for an A and a B Certificate, and the proposal was dropped.

Since 1930 the operators have on several occasions asked for the B Certificate to be introduced, and in this request some, at any rate, of the miners would now be prepared to concur.

I Therefore Recommend that opportunity should be given to enable young men to gain experience by working at the coal face under an experienced miner and that the Minister should consider, with his Advisory Committee, the best method of making provision accordingly.

Mining Industry Welfare Fund.

Within recent years a substantial Welfare Fund has been developed in Great Britain. According to the recent Report issued in 1934, this Fund, which was provided by a levy on the output of coal, originally of 2c a ton, but now since 1932 reduced to 1c a ton, produced a large sum of which four-fifths, together with a royalties welfare levy, amounts to $1,875,000 per annum and is applied to providing pithead baths, with $100,000 applied to research into methods of improving health and safety of workers in and about the mines; very large sums have been distributed under the Welfare Fund since its original initiation. A wide interpretation is put on the word "welfare" and considerable sums have been expended on recreation, including provision of playgrounds, swimming pools, and also on education and other similar objects.

In 1925 the Duncan Report recommended the constitution of a Fund on similar lines to make provision for social well being and recreation of the workers and for mining education and research in Nova Scotia. This Fund was to be formed by a levy of 1c per ton on coal raised, and 1c per ton to be contributed by the Province from royalties which it received in respect of the ownership of the mines.

A Fund of this kind where instituted has been found to be of value, both in promoting the welfare of the miners and also in encouraging more harmonious relations in the industry generally.

Since the decision in the Caledonian Collieries case, it appears that a levy per ton of coal produced in Alberta is *ultra vires* of the Province, as it would be held to be indirect taxation, which could be passed on to consumers outside the Province. It is, however, desirable that such a Fund should be constituted in Alberta, and the Minister, in consultation with his Advisory Council, should consider steps to launch such a Fund. Probably the best way to establish it would be on a percentage basis of wages paid, similar to the Workmen's Compensation levy; this levy is now at the rate of $4.25 per $100.00 of wages paid. The average wage cost is approximately $2.00 per ton of coal produced, which

gives a figure of 8.5c per ton. On a total output of 4½ million tons, this levy produces some $382,000.

A levy of 1c on the above basis would yield $45,000 per annum. To this the Government should be prepared to make a contribution in virtue of the royalties they receive from the coal industry, equivalent to 50% of the levy mentioned, giving a total of approximately $67,000. This Fund should be vested in a Board consisting of equal representatives of operators and miners, with the Minister or his representative as independent Chairman. The Fund should be devoted as to two-thirds to miners welfare, including possibly contribution to stimulate improvement in housing conditions in the worst areas; and as to one-third for research, publicity, etc., in the general interests of the coal-mining industry as a whole.

The Industry generally, and apart from Steam Coal, is at the moment in a somewhat depressed condition.

I Recommend:

That, as and when conditions in the Coal Industry improve, a Mining Industry Welfare Fund be constituted by means of a levy on the pay-roll, calculated to produce the equivalent of 1c per ton of output; and to this the Government in virtue of royalties received should contribute an amount equivalent to an additional 50%: the Fund to be vested in, and administered by, a Board on which operators and miners are represented, and be devoted as to two-thirds to welfare of the miners and one-third to research and publicity.

CHAPTER VII.

REGULATION.

1. Introduction.

In recent years, and particularly since the Great War, there has been a growing tendency on the part alike of Governments and of the world of industry and commerce to consider proposals for regulation to a degree undreamt of a generation or two ago.

The main object in view has been the better adjustment of production and consumption, with a view to the elimination of waste and the regularisation of a competition which tends, under modern conditions, to verge not infrequently on chaos. *Laissez faire,* it is claimed must give way to large scale and far sighted planning.

Cycles of trade expansion, followed by trade contraction, have long been known in the world of industry, but with the development of modern commerce the swing of the trade cycle is enormously emphasised and, as expressed in terms of flesh and blood, often leads to tragic results; in the rubber industry, for instance, prices have varied since the beginning of the century from over $2.50 per pound down to under 4c per pound. In the early days of the century, accompanying motor development, there was a shortage of rubber; high prices were realised, thousands of plantations were started and immense capital sums invested in Malaya, Dutch East Indies, Ceylon, etc. Then came the inevitable over-production, trade depression after the War, immense contraction in demand for rubber, plantations scrapped and managers and employees thrown out of employment. Now, with improving trade, rubber is picking up again and as thousands of acres of planted rubber have been allowed to fall out of cultivation, when trade really improves there may very possibly be another shortage of supply and another rubber boom.

Efforts were made to enforce a restriction of sales with a standard selling price in British Malaya, but these efforts were doomed to failure as the Dutch East Indies and other areas were not included, and the effect of restricting the supply in British Malaya and fixing a price at 36c per pound was to stimulate the competing areas to plant rubber which in five years began to come into bearing and the British Government withdrew the restriction scheme.

In the international tin market, on the other hand, a restriction scheme with a stabilised price is in successful operation; the circumstances are favourable, as there are only some three or four countries in the world who are large producers of tin, and it proved possible to secure co-operation between them all: within the last two years representatives of all the governments of the countries concerned and of the mine operators in those countries have come to a working arrangement, the administration of which is carried out by a committee sitting in London.

Ten years ago the price of tin was £315 a ton; five years ago it sank to about £105 a ton; now with a restriction scheme in operation, the price is kept steady at £220 to £230 a ton, and supply and demand are being reasonably adjusted. The figures of average production of the countries concerned in years prior to the restriction scheme coming into operation were agreed upon: this

average production was fixed as 100% capacity for each country: in view of the reduced demand for tin owing to the depression, the quota figure for each country was at first restricted to about 60% of capacity, but with improving trade the demand for tin has increased and the output has now been extended by the Tin Committee sitting in London to about 90% of capacity in all restricting countries. The countries themselves allocate in each case the quotas amongst their respective mines: the object is to keep the price stable but to avoid anything in the nature of exploitation or exorbitant charges to the public. There have been criticisms of the scheme, but it is safe to say that in none of the countries do either the governments or the mine operators propose to return to the scramble of unlimited competition.

It is remarkable to notice how within recent years advocates of the old doctrines of *laissez faire* have become converted to the new gospel of planning.

Sir Adam Nimmo, whose name will be known to many in the coal industry as a distinguished and respected leader amongst coal owners in Great Britain, has published recently two remarkable article in the London *Times*.* In these he explains the need and method of planning on broad lines first, in industry generally, and secondly, in the coal industry in particular. After emphasising the great change that has taken place in the last twenty years, he lays stress on one of the principal aspects of planning, especially in industries such as coal where in many countries in the world, as indeed in Alberta to-day, the principal difficulty is the prodigality of nature coupled with the paucity of markets: the result is redundant collieries and surplus output, and he advocates that by means of a quota scheme there should be what he calls "elimination by inducement;" and he goes on to say as to coal that "The industry does not appreciate the practical benefit that would accrue from the elimination of surplus production, nor has it clearly realised how comparatively small is the amount required, when spread over the whole of the operating undertakings in an area, as against the material advantage in price that would result." Apart from coal, the developments of the new principle of large scale planning are numerous in Great Britain: there are, in the sphere of production, recent instances in agriculture relating to the control of meat, wheat, butter, milk, etc.; and the machinery of milk boards, pig boards and so on for distribution; the large scale regulation of the Port of London including all the docks and river facilities, now under a unified Port of London Authority; the national electric supply and the "grid" system; the entire transportation of the Metropolis—trams, buses, tube railways—now placed under one London Passenger Transport Board. In each of these, though there has been criticism, it is broadly safe to say that there is no general proposal to return to the days of unregulated competition.

To take one instance, the policy of pig boards and milk boards could, under Parliamentary provisions, only be adopted by a majority of the farmers of the country: over 90% of the farmers voted for the adoption of the milk board. Recently there was severe and wide-spread criticism of that Board; accordingly the issue was again put to the farmers whether it should continue or not, and over 80% of the farmers voting were in favour of continuance.

It is often said, first, that restrictions may be necessary but only in the case of a dying industry or one whose markets have become unduly restricted, as in the case of coal in many countries; but this is far from the general experience. Electricity and agriculture in Great Britain, rubber and tin in the world's markets, can certainly not be classed as dying industries, or industries with

*See 27th March and 9th May, 1934.

restricted markets. Another criticism is that restriction and regulation may be necessary in times of depressed trade, but the need for such regulation will disappear when trade improves and becomes normal again: but this is not the case. Take coal, tin or rubber: when times improve, apart from any regulation of further output, all that will happen will be that fresh capital will rush in, new undertakings or plantations will be started, and then the old cycle of over-production, slump in prices, loss and bankruptcy will start again. Times of depression may accentuate the desirability of regulation, but the need of it will be just as great even after trade improves.

One strong objection urged against regulation is that it is difficult to organise without some measure of government interference. Modern industry has difficulty in defining its relation to government: in times of depression it welcomes government assistance, in times of prosperity it denounces government interference. There would be general agreement that government is entitled to interfere in industry when public security is in peril, for instance in war time; there is a second instance where modern industry frequently has to come to government and ask for some measure of backing. If sixty or seventy per cent. or more of an industry have agreed on a definite course, and a small minority alone hold out, that minority can disorganise or defeat proposals generally approved by the industry to a degree out of all proportion to the numbers or importance of the minority in question. The old motto of the press gang days, that one volunteer sailor was worth ten pressed men, embodies a principle as true to-day as ever it was; but it is equally true that when a large majority of an industry have decided on a policy the will of the majority must, if the industry is to make progress, in the end be allowed to prevail.

Enough has been said to indicate a general tendency of modern industry and the same tendency has found its counterpart in the coal trade both in other countries and also in North America.

2. Germany, Great Britain, United States of America, and Saskatchewan.

(i) Germany.

In Germany there is no law prohibiting the formation of trusts or cartels; in fact these combinations are fostered by the Government: in no country in the world is the coal industry more highly organised than in Germany.* Cartels or trusts had existed in Germany for many years prior to the War. Since so long ago as 1893 the policy has been that the cartel should, under Government supervision, regulate the output of coal by quotas given to the different members, and also prevent price competition through price fixation. While many changes have been made in the activities of the cartel, the two principles of regulating production and fixing the price have been maintained. Of the 11 cartels, that of the Ruhr district has been the most important because of the predominance of that district as a producer, and the higher quality of its coal; hence the Rhenish-Westphalian Coal Syndicate has been the model for all the others; it has continued since its inception without much change, except the admission, under compulsion, of workmen's representatives on its governing body.

Following the revolution in Germany in 1918, there was a general demand for the socialisation of the basic industries, and the Republican Government appointed a Commission, which generally favoured the nationalisation of the coal industry.

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*_The Coal Industry of the World_, by H. M. Hoar, U.S. Dept. of Commerce, 1930, pp. 117, 119.

The law officers of the German Government then pointed out that the creation of further State property would be highly dangerous in view of the fact that by a provision of the Treaty of Versailles, which had just been signed, all State property of the Reich was mortgaged for reparation purposes; and the whole question was shelved.

The next step was the passing of the federal law for coal administration, which provided for the compulsory organisation of the coal industry into 11 syndicates or cartels, which, in order to secure effective government supervision, were united into a body of owners and distributors, known as the Federal Coal Union; this Union is itself under the direct control of the Federal Coal Council, on which the Union is represented, and also consumers, technical experts and labour interests.

The powers of the Council are wide, and cover such matters as wages, prices, distribution, supervision of imports and exports, arbitration of disputes, and other matters affecting the industry or the public; in all of these the Minister of Economic Affairs has a controlling voice; in fact, the Minister and the regional cartels are the really powerful factors in the situation.

Throughout, an important factor of the German system has been the sale of quota rights: many smaller pits have been glad to avail themselves of the power to transfer their quota to richer and better organised undertakings; often there has been considerable competition for the purchase of additional quota, thus affording a means whereby the bigger undertakings could take over the poorer and less effective mines.

Technically retail sale of standard tonnage is illegal, but the same result can be secured either by amalgamation, when the standard tonnages of the two co-operating concerns are treated as one unit, or by "exchange" and "lease" of tonnage for a period, at an annual rent.* Severe competition had developed between the various syndicates or cartels, and a movement was launched accordingly, much along the lines of the English Act of 1930, to eliminate price cutting between them, and also to encourage amalgamations. In the Ruhr district the tendency towards amalgation has been continuous and reached large proportions, the object being to promote economy of working, and also as indicated, to secure in many cases an increase of standard tonnage.

It is confidently claimed, both by experts in the industry and by economists, that amalgamations and better organisation have resulted in increased efficiency in the Ruhr; in 1934 coal production in Germany increased by 14.2% against 7.9% increase in Great Britain.

Finally, distribution in the coal trade was considered to be the gap in an otherwise solidly organised industry. The wholesale merchants in 1933 were found to number some 1,800, and the retailers 50,000, and under pressure from the Government the Coal Dealer's "Registration card" was introduced, and a general agreement reached between the Central Association of Coal Dealers, comprising compulsorily all wholesale and retail traders and the various cartels or syndicates; the latter can now sell only to members of the Association of Coal Dealers.

Special powers have been conferred on the newly organised retail trade so as to secure mutual assistance against price cutting, while at the same time reserving to the registered retailers monopoly of supply of all domestic coal to the consumer.†

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*See article by Dr. Richter in *Iron & Coal Trades Review* for August 10th, 1934.

†See article by Prof. Herman Levy, author of *Industrial Germany*, in *The Colliery Guardian*, August 26th, 1935.

(ii) Great Britain.

It has been thought worth while to give in some detail the recent striking developments in Great Britain along the lines of better organisation in the coal industry: there appears to be little realisation in Alberta of the progress of Regulation in Great Britain, or of what the results achieved have been. Though conditions in Alberta are different, the fundamental problems facing the coal industry in both countries are in many respects the same.

The Royal Commission presided over by Sir Herbert Samuel, in its Report in 1926, after drawing attention to the increase in foreign competition and the fall off in the export trade, pointed out that many collieries were on too small a scale to be good units of production; the selling organisation and method of transport did not sceure the best results for the collieries or for the miners; and the relations of employers and employed called for many improvements.*

The Commission accordingly made definite recommendations with a view to encouraging the *Amalgamation* of small collieries, on voluntary lines if possible, but with a power of State compulsion in reserve where necessary; the combination of coal with allied industries, especially electricity, and to that end, the establishment of a National Fuel Board; and the extension of research.

As to *Distribution,* the Report was emphatic that

> "The Industry as a whole has so far failed to realise the benefits to be obtained by a readiness to co-operate. Large financial advantages might be gained by the formation in particular of *co-operative selling agencies*. . . . The Government should consider the establishment of an official system for the sampling and analysis of coal."

As to *Labour,* various recommendations were made with a view, e.g., to securing to men not employed at the face some direct interest in the output; to making obligatory profit sharing schemes for the distribution to the workmen of shares in the undertaking; and also, where not already secured, to providing for proper housing accommodation and the more general establishment of pithead baths.

This Report was followed by The Coal-mines Regulation Act 1930, Pt. I of which deals with schemes for *"Regulating production, supply and sale of coal"*, and Pt. II with *"Reorganisation of the coal-mining industry"*; it is necessary to keep these two parts of the Act distinct.

Part I of The Coal-mines Regulation Act, 1930.

Section (1) provided there should be a "central scheme" regulating the production, supply, and sale of coal by owners throughout Great Britain, which was to be administered by a Central Council; and in addition to the Central Scheme for the whole country, there were to be separate "district" schemes to function in the same way for each of 21 districts,† which were to be administered by an "executive board". The Central Council, was to be composed of representatives of all the owners of coal-mines in the several districts, and was to provide for "the allocation to each district by the Council . . . of a *maximum output for the district"*, called the *"district allocation."*

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*Report of the Royal Commission on the Coal Industry (1925), published 1926, Cmd. 2600, pp. 3 and 232.

†Power was given in Pt. II of the Schedule to the Act to combine and reduce the number of districts; there are now 17 districts; see Report of Mines Department for 1934.

The District Schemes were to deal *inter alia* with the following points:—

(i) The determination of the class to which any coal produced in the district belonged; also the determination of the "*standard tonnage*" of every coal-mine in the district.

(ii) The determination of the proportion or "quota" of the standard tonnage which each of the coal-mines in the district was to be allowed to produce.

Provision was made for the transfer of quotas from one pit to another, which has been so important a feature of the German system, and also of the restriction scheme in the tin industry.

(iii) The determination of the *price* below which every class of coal in the district might not be sold.

(iv) The imposition of monetary penalties on any owner in the district, in the event of failure to comply with the scheme.

Elaborate provision was made for setting up national and district Committees of Investigation in order to deal with complaints, e.g. on the ground that a scheme was "contrary to the public interest", or "unfair or inequitable"; and for reference to arbitration, with a final appeal to the Railway and Canal Commission. (Sec. 5.)

To protect consumers, strong representation was given them on the Investigation Committees; the Chairman was to be nominated by the Board of Trade, and of the remainder, one half were to represent consumers, the other half the coal industry—miners and owners.

Administration of Part I.

It is worth while indicating in some detail the main difficulties experienced in administering Pt. I of the 1930 Act during the last five years, also the successful results on the whole achieved. Not unnaturally, adjustments and amendments were required from time to time in order to fit such an old and highly developed industry as that of British coal, with its numerous variations of local tradition and practice, into the novel machinery of Government Regulation.

(i) *Output and Quotas.*

By 1st January 1931, standard tonnages had been determined and coals classified.* Some districts at once exceeded their output and incurred penalties varying from £2,500 to £3,500 ($12,500 to $17,500), while other districts fell below their allocation to an extent varying from 8% to 24%, due generally to labour difficulties.

During 1933, amendments of the schemes were under discussion in the industry, but no agreement was arrived at, and in March 1934 the Government introduced a Bill with a view to enforcing certain amendments. As the result of this pressure, an agreement was arrived at by the industry on disputed points, including (a) provision of separate allocations for both inland and export trades, and (b) inter-district co-ordination of minimum prices: and the Bill was dropped.

Quotas.

Mine quotas were, in the early days, in some cases exceeded, monetary penalties not usually at first being exacted, but the excess output was deducted from the succeeding quota. Generally, coal owners made use, where desirable of their power to transfer their quotas, thus securing elasticity of output; usually the payment for such transfers in the early days was nominal, but in Scotland complaint was made that some owners had been compelled to buy quotas at excessive charges, sometimes as much as 1/6d. (35c) a ton.

*Reports, Mines Dept., on The Coal-mines Regulation Act, 1930, Pt. I, from March, 1931, to March, 1935.

In Lancashire the large majority of the owners, soon after the passing of the 1930 Act, agreed to co-operate in a special quota scheme. By 1933 in a number of districts voluntary arrangements had come into existence, whereby surplus quota was pooled, and the price at which it could be purchased limited; in Lancashire and Durham the price was fixed at 6d. (12c) a ton, but in 1934 the Durham price was reduced to 3d. (6c), the scheme at the time being amended so as to cover both inland and export supply quotas.

(ii) *Price Regulation.*

Price regulation did not proceed at first so satisfactorily as regulation of output. In 1932 various Executive Boards reported strongly in favour of the co-ordination of minimum prices, some districts having fixed minimum prices so low as to depress general price levels in certain markets. Price evasions also occurred, though the consensus was general that "There was a genuine desire on the part of the coal owners to observe the minimum prices, and to secure the benefits intended by the Act."

The Act did not prohibit ordinary selling agencies, but it was urged that the establishment of minimum prices clearly involved strict supervision of such agencies. The agent could only be paid a reasonable commission; he was not at liberty to give the buyer any part of that commission, as that would in effect reduce the minimum price to the buyer.

When the amending Bill was under discussion in 1934, the inter-district co-ordination of minimum prices was part of the Government programme, and when the Bill was dropped, the Central Scheme by agreement was amended in order to make provisions as from 1st January 1935 for this co-ordination. Difficulties still remain, but groups of districts have been exploring means of introduring voluntarily measures of regional co-ordination in their minimum prices.

(iii) *Central Selling Agency.*

The Samuel Commission had expressly recommended that "Large financial advantages might be gained by the formation of co-operative selling agencies", and in 1935 the Lancashire and Cheshire district scheme was amended so as to include provision for such a selling agency, this being the first district where the powers of Pt. I of the 1930 Act were so made use of.

Under* the Scheme, the exclusive power of selling coal in the district is vested in the Executive Board, trading under the name of Lancashire Associated Collieries, whose chief functions are carried out by a Selling Committee. It is provided that no owner in the district may supply coal (except coal for mine consumption, miners' coal, and coal for ancillary works) otherwise than to the Executive Board. Each owner surrenders his goodwill to the Executive Board, and in return participates in the sales made by the Board in accordance with the provisions of the Schme:—

Each mine is allotted an annual supplies basic tonnage, based on supplies by that mine in the year 1934. The annual supplies basic tonnages can only be revised at three-yearly intervals on specific grounds set out in the Scheme; and are divided into monthly proportions and also into groups determined according to the nature and size of the coal. The Board is bound in each month, so far as possible, to purchase coal from each owner in proportion to his monthly supplies basic tonnage. At the end of the month the total tonnage supplied to the Board by owners is divided according to the monthly supplies basic tonnages of the mines for that month. The tonnages thus calculated are the trade shares of the various mines. In a similar manner the trade share of each mine for each group of coal is calculated. Compensation at the rate of 2/6d. (60c) per ton is paid by the Board in respect of any

*This summary is from information kindly supplied by the Mines Dept. in London.

deficiency in coal taken from the owner in any month as compared with his trade share; and the owner pays the Board at the same rate in respect of any excess in the takings of coal from him. Provision is also made for compensation and contribution in respect of each group of coal. In addition, it is provided that the Board must take not less than 90%, nor more than 120%, of every owner's trade share of coal in any month.

The Board pays to each owner in respect of the coal taken from him a price per ton equal to the average price realised at the pit for each commercial description of coal in the year 1934, with abatement in respect of selling expenses taken over by the Board. The profits from the sale of coal by the Board are distributed among the owners in proportion to their annual supplies of basic tonnages.

Opinion has recently moved rapidly in the direction of central selling: all districts have within the last few months undertaken to set up by 1st July 1936 central selling schemes similar to that of the Lancashire and Cheshire district, with arrangements for national co-ordination as in the case of the quota. It is significant that the miners in the Notts. district have welcomed this important change "As the best method of securing an improvement in wages".*

Authoritative evidence is clear that:—

"To pay better wages to the miner, the Industry must obtain a reasonable return for its product, and this can be achieved by a *reorganisation of the selling side of the industry.*"

Part II of The Coal-mines Regulation Act 1930.

Control of output;

Central Selling Agencies; and

Amalgamation of undertakings;

are three aspects of regulation which constantly recur; the first two have been dealt with above under Pt. I; the whole of Pt. II is devoted to Amalgamation; a Commission is set up, and if the Commission decides that it is expedient:—

"For the purpose of promoting the more economical and efficient working, treating or disposing of coal that an amalgamation or an absorption scheme"

under an earlier Act of 1926, should be prepared for any two or more mining undertakings, the Commissioners:—

"*Shall* require the owners to submit to such a scheme";

and if the owners fail to do so, then the Commissioners *shall* themselves prepare and submit such a scheme to the Board of Trade.

Provision is made for consideration of schemes by the Railway and Canal Commissioners, who cannot confirm a scheme unless certain conditions are complied with, such as that the scheme will be in the national interest, that it will lower the cost of production of sale of the coal, that it will not be "financially injurious" to any of the undertakings to be amalgamated, and that the scheme is fair and equitable to all parties.

Progress has not been easy: the Chairman, Sir Ernest Gowers, has addressed† to the coal industry on several occasions clear and persuasive appeals indicating the policy of the Commission, and the need for co-operative action by owners. The coal-mining industry in Great Britain could not sell since the War, and possibly had no prospect of ever being able to sell again, anything like as much coal as it could produce; it could therefore no longer afford to accept unrestricted

**The Spectator,* November 8th, 1935.

†See Preliminary Notes, July, 1931, on application of Pt. II of The Coal-mines Regulation Act, 1930; addresses by the Chairman, July 13th, 1931; Feb. 24th, 1933; Feb. 6th, 1934; Report of the Commission, 28th November, 1933.

competition between a large number of unco-ordinated units; in 1913 Britain produced 287 million tons and exported 98 millions; in 1933 production was only 207 million tons, and export 57 millions: further, the industry had some 1,500 independent producing units, many of them showing little or no profit; yet, in coal, as in other industries, the tenacity often shown by businesses working at a loss was extraordinary. The policy of Parliament was that the industry was to be invited to re-organise itself, but if that proved impossible, then the Commission was not to shrink from using the compulsory powers entrusted to it. Such a policy might run contrary to individualist tradition, but, as Lord Salisbury had said of an earlier Coal Bill which the public viewed with some apprehension:—

> "They were carried forward by a social force superior to each party, *the force of the necessity of things.*"

Conclusion.

Amalgamation, as was to be expected, is not proving a simple matter; but regulation is being applied effectively, both to output and to central selling: and the results are working out by no means to the detriment of the industry.

The most recent information from the Mines Department in London indicates steady progress. In 1934 the output increased over that of 1933 by nearly 14 million tons, and the first nine months of 1935 also show an advance; profits also at 5d. (10c) per ton were better in 1934 than for some years past: miners' annual cash earnings have advanced from £113 18s. 2d. to £115 11s. 6d., while the cost of living figure has fallen by 12%.

(iii) United States of America.

The Guffey Act.

A code was promulgated under the N.R.A. some two years ago for the coal industry and considerable progress was made in the organisation of the industry accordingly: but in May 1935 the decision of a Supreme Court declared the N.R.A., and codes put out under its provisions, to be *ultra vires.*

The matter did not rest there: in June 1935 a Sub-Committee of the Committee of Ways and Means in the House of Representatives in Congress sat to consider a Bill for the stabilisation of conditions in the bituminous coal-mining industry, and evidence was heard at length directed to show that the conditions in that industry were unsatisfactory from the point of view of the operator, of the miner, and of the consumer. As a consequence, an Act known as the Guffey Act was passed (a copy is filed with other documents). On November 14th, 1935, Federal Judge Elwood Hamilton handed down a decision in Kentucky that the Guffey Act was not unconstitutional: judgment was also given in Carter v. Carter Coal Coy., in the D.C. Supreme Court, Nov. 27, 1935, that the Guffey Act is valid as to price fixing and taxation; but invalid as to agreements regarding hours of labour and wages. It is understood that the Act is to come up on appeal before the Supreme Federal Court at an early date. (See U.S. Law Week, Dec. 3, 1935, p. 9.)

The Act begins by reciting:—

> "That the excessive facilities for the production of bituminous coal and the over-expansion of the industry have led to practices and methods of production, distribution, and marketing of such coal that waste such coal resources of the Nation, disorganise the interstate commerce in such coal and portend the destruction of the industry itself . . . ";

and went on to declare that control of such production, and of the prices realised, was necessary, that practices prevailing in the trade required regulation,

and that the right of miners to organise and collectively bargain for wages, hours of labour and conditions of employment, should be guaranteed.

A National Bituminous Coal Commission of five members was accordingly constituted, with an office in Washington, D.C., and with power to make reasonable rules and regulations for carrying out the provisions of the Act. (Sec. 2.)

An Excise Tax of 15% on the sale price at the mine was imposed, but any coal producer who accepts the code provided in Section 4 of the Act is to be entitled to a drawback in the form of a credit upon this tax up to the amount of 90%. (Sec. 3.)

Section 4 provides for the setting up of a Bituminous Coal Code, to contain provisions dealing *inter alia* with the following:—

1. The organisation of 23 district boards of coal producers. Within a district, voluntary associations of producers may constitute a marketing agency, and both district boards and marketing agencies have power to adopt by-laws, subject to the approval of the Commission.

2. As to marketing generally, district boards and code members must accept the jurisdiction of the Commission to approve and fix maximum and minimum prices, and provision is made for such prices being fixed with a view to the stabilisation of wages, working conditions and maximum hours of labour.

The minimum price is to be based on total costs per net ton, calculated on a basis laid down in the clause; the minimum prices are to be just and equitable as between producers in the district, and must have regard to the interests of the consuming public.

Certain unfair methods of competition are also specified and declared to constitute violations of the code, but include:—

> Consignment of unordered coal or forwarding of coal which has not been actually sold:
> Secret allowances, rebates or concessions to purchasers:
> Pre-dating or post-dating of invoices or contracts for the purchase of coal:
> Any device of rebates, credits or unearned discounts intended to give one purchaser advantage over another:
> Purchasing business or information concerning a competitor's business, by concessions, gifts or bribes:
> Misrepresentation of any analysis, or the use of untrue or misleading statements:
> Attempts to induce a breach of contract between a competitor and his customer.
> Splitting or dividing commissions, brokers' fees, etc., with an industrial consumer or a retailer:

and so on.

Part III of Section 4 deals with Labour Relations, and was intended to secure, generally speaking, the right of collective bargaining and to make provision for dealing with disputes; and for fixing maximum daily and weekly hours of labour.

It will be noted that the provisions as to unfair practices or unfair methods of competition bear a very strong resemblance to those laid down in the Saskatchewan Regulations.

Appalachian Selling Agency.

With regard to distribution and the problem of marketing, an interesting experiment has been attempted in the Appalachian coal-fields. As the result of the depression, in 1929, 148 coal producing companies came together and formed, in the State of Delaware, Appalachian Coals Incorporated: the mines represented by the constituent companies produce 80% or more of the com-

mercial coal mined in South-West and West Virginia and in East and South-East Kentucky. They have an actual production to-day of about sixty million tons per annum and capacity for another twenty millions of output.*

Appalachian Coals Inc. acts as the wholesale agent for all the constituent companies, and enters into a specific agreement with each of them for this purpose. On the other hand, Appalachian Coals Inc. does not sell retail but cast through the recognised retail dealers in the ordinary way, and where any of the constituent companies had in the past been employing retail dealers, these continue to be similarly employed by the new wholesale organisation. Information received indicates that Appalachian Coals Inc. in the last four or five years has been in successful operation; and it is important to notice that it has received the approval of the Federal Supreme Court.

(iv) SASKATCHEWAN.

The Evans Report had drawn attention to the successful operation of the Souris Pool for marketing coal in Saskatchewan; p. 164. This pool, which was formed on 1st September 1925, consisted originally of six lignite mines, producing from 80% to 85% of the total output of the field, and embraced all the larger mines, with one exception. During the period from 1929 to 1933, the production of coal in Saskatchewan developed, and increased by so large a figure as 59.8%, while in the same period it had declined in British Columbia by 44.5% and in Alberta by 34%.†

In 1930 the Truax Traer Coal Company, a large strip mining undertaking, began business in Saskatchewan and rapidly increased its output from 77,188 tons in 1930 to 459,133 tons in 1933, and in the latter year was producing more than 25% of all the coal mined in the Province. In 1934 complaints arose as between the Pool or Group mines, then number 5, and the Truax Traer Coal Company, on the ground that the latter was responsible for price cutting and unfair practices, such as secret rebates and concessions the effect of which, it was claimed, had been to destroy the price structure and cause loss and confusion in the industry. In consequence a Royal Commission was appointed on the 29th October 1934, the Hon. Mr. Justice Turgeon being the Commissioner, and the Report of the Commission was issued on March 30th, 1935, and found:—

> "Conditions are bad as between the different classes of mine operators; they are not satisfactory from the point of view of the workers; and unless something is done to introduce order where conflict and disorder have been prevailing, the public will ultimately be made to suffer." (p. 35.)

The Saskatchewan Legislature had recently enacted The Coal Mining Industry Act 1935, which incidentally gives regulatory power analagous to those secured for Alberta by The Department of Trade and Industry Act 1934, Pts. II and III.

Mr. Justice Turgeon indicated that in his opinion the situation in the Saskatchewan coal-fields could best be met, and the disasters to the industry which he apprehended prevented, by a judicious application of the provisions of The Saskatchewan Coal Mining Industry Act, 1935: and questions affecting prices, wages, business ethics, etc., could be worked out under its provisions. He further added that he was satisfied the price question was one which would have to be taken in hand in the Souris coal-field in the interests of the industry,

*_Western Canada Coal Review_, July, 1933, p. 6; and see copy printed Agreement to be signed by each company with Appalachian Coals Inc., filed with other documents.
†See Report of Royal Commission, 1934, referred to below.

the workmen and the public. It might be alleged that any regulation of prices along these lines was in restraint of trade, and illegal: this question he proceeded to consider at length, and cited the well-known case of the Attorney General of Australia against the Adelaide Steamship Company (83 L.J.P.C. 84), decided in 1914.

This decision of the highest Court in the Empire is of first rate importance, and deserves to be better known; it cannot, in this matter of Regulation, be too often emphasised that, as the Privy Council held, a combination to raise prices is not in itself illegal or in restraint of trade, but a combination is illegal if the intention is, as the result of such regulation, to charge *excessive or unreasonable* prices; whether in any given case, prices are excessive or unreasonable is a question of fact to be determined in the light of all the surrounding circumstances.

As a result of the Report of Mr. Justice W. F. A. Turgeon's Commission. Regulations were issued for the industry under The Coal Mining Industry Act of 1935, effective as from September 1st 1935, with a view to carrying out the recommendations of the Commission. That Act gave special and important powers, as from the date of enactment, to license all mines, and to prohibit the carrying on of a mine by anyone not so licensed: power was also given to revoke a license, if any of the terms and conditions were not observd.

It is not possible to give the Regulations *in extenso,* but a copy is filed with other documents. Shortly the effect of the Regulation is:—

No coal-mine shall be operated in Saskatchewan unless the operator has first obtained a licence issued by the Coal Administrator. (Sec. 2.)

Licences may be of three kinds—for a wagon mine, a shipping mine, or a domestic mine. (Sec. 7.)

Every applicant for a shipping or wagon mine licence must give satisfactory proof that wages of all employees have been paid and satisfied; that rentals due to the Crown and royalties have been paid; and that all assessments made under The Workmen's Compensation Act have also been met. (Sec. 9.)

Every applicant for a license shall at the time of making application furnish to the Minister a schedule of the rate or rates of wages paid, or proposed to be paid, to the miners he employs, together with a statement showing the gross and net earnings of such miners. (Sec. 11.)

The Lieutenant-Governor is given power, on the recommendation of the Minister, to alter any wage schedules so submitted by an applicant; the Minister is to have regard to prevailing economic circumstances, the living conditions of the miners, the mine-head prices realised, and the tonnage produced. (Sec. 12.)

Every applicant for an operator's licence, as a condition precedent to obtaining the licence, must enter into an agreement to observe 8 or 9 conditions, of which some of the principal are:—

Apart from cases of approved agreement, not to sell or dispose of coal below the minimum price at the mine-head, as approved from time to time:

Not to make any adjustments with purchasers of coal with a view to grant secret allowances, rebates or concessions:

Not to pre-date or post-date any invoice or contract for the purchase of coal, except as part of a *bona fide* arrangement:

Not to attempt to purchase business or obtain information as to a competitor's business by gifts or bribes:

Not to issue false or misleading statements, or advertise or use unauthorised trade-marks:

To sell coal through wholesale distributors and retailers, except in areas where there are no retailers, subject to the proviso that the applicant may load coal into trucks for direct delivery to his own consumers.

Lastly, coal was to be sold on terms requiring payment generally within 30 days, and in no case longer than 45 days.

(Sec. 13)

The terms of this code should be carefully noted: they are in form an agreement between each licensed operator and the Minister representing the Crown: on breach of any of the regulations, the Minister, as stated above, has power to cancel the license and close the operator's mine. Further, the fixing of the minimum price is embodied in the same agreement, and is also enforceable by means of the licence. This arrangement was probably made so as to avoid difficulties under the British North America Act.

As to minimum prices, the Lieutenant Governor in Council was authorised, upon the recommendation of the Minister, to give legal effect to agreements arrived at between operators on a voluntary basis, providing for minimum prices, but power was given to revise such prices by notice in the Gazette; and subject to this the minimum prices at the minehead for the coal season 1935-36 were definitely fixed; for example, to take lump or cobble:—

W.D.M. & S.	$2.00
Bienfait	1.85
Eastern Crescent	1.75
Traux-Traer	1.75
Others	1.75

(Sec. 16.)

Save as provided in approved agreements, no coal produced in Saskatchewan is to be sold at prices below the minimum fixed. Any association or group of licensees, however, may enter into agreements fixing minehead prices at figures higher than the approved minimum price. Every licensee is required to register a trade name for the coal taken from each mine operated by him. Such a registered trade name cannot be used for coal taken from any other mine operated by the licensee without the consent of the Coal Administrator. No coal produced in Saskatchewan shall be advertised or sold except under its registered trade name. There were also provisions dealing with invoices for shipment of coal by the licensee for direct delivery, and also for invoices in the case of wholesale distributors and retailers, with a view to securing proper records as to the practices adopted.

3. Legal Regulation in Canada Generally.

It is fair to say that in the newer countries generally, as distinguished from the old world, regulation and organisation probably run more counter to the instincts and traditions of the people than in the older countries of Europe: independent initiative has been and still is the golden pathway to success for mankind, but the new world, and particularly the West, is apt to discount the value of collective effort. The pioneer had only his own axe and rifle with which to blaze his own trail and defend his own life, but as communities become more settled organisation must take its proper place. An eighteenth century philosopher sagely observed that no man, that is no civilised man, "Desireth the desolate freedom of the wild ass". What men do desire more and more under modern conditions is freedom to live and find self expression in organised communities; and if the community, whether city or state, is to hold together and progress, some measure of regulation becomes inevitable.

One of the great problems of to-day is unemployment and unemployment relief and for this and for other social evils, such as sickness, old age, etc., provision at any rate in the case of the less well-to-do, has to be made by the community as a whole.

Throughout Canada great strides have been made in recent years both in what is usually called "social legislation"; and also in the regulation of conditions within the various industries. In Ontario alone nearly forty thousand wage earners now have their minimum pay and maximum hours regulated under The Industrial Standards Act, 1935; and in the Province of Quebec more than one hundred and thirty thousand workers, including those engaged in the building trade, long-shoremen, printers, bakers, barbers, etc., are similarly protected under the Collective Labour Agreements Extension Act, 1934.*

Canada, it is true, has no N.R.A. of universal application: it has proceeded on wise and moderate lines, making experiments and applying codes as and when desirable: when a large majority of the industry have approved the codes Governments have undertaken to enforce them.

4. Legal Regulation in Alberta Generally; and for the Coal Industry.

In certain directions in Alberta regulations have been applied and prices fixed; for instance, in the supply of milk in the large cities of Calgary and Edmonton; similarly there is a minimum wage in force for female labour.

In April 1934 the Provincial Government of the day passed an Act entitled The Department of Trade and Industry Act, which had for its main object "to encourage the betterment of the condition of all trades in the Province, and the development of the natural resources of the Province". For this purpose, a special Department, called the Department of Trade and Industry, was to be set up with a Minister of Trade and Industry in charge of it. The Minister was given powers, *inter alia,* to enquire into and make surveys as to any trade (a term which was to include any industry) in the Province, to promote and attend conferences of representatives of the persons engaged in any industry, and to promote the formation of Associations, of persons engaged in any industry, where no such association existed, with a view to bettering conditions and eliminating detrimental practices.

Power was also given to the Minister to hold conferences with a view to formulating codes "and setting up standards of ethics, methods, practices and systems applicable" to any given industry; and also to establish standards of price and minimum standards as to hours and wages: and where a code was approved by sixty-six per cent of the persons engaged in the industry or by those owning sixty-six per cent of the capital invested in it, provision was made, after publication of the code in the Alberta Gazette, for the code to become legally binding on the industry (Sec. 6). Section 10 gives power to the Minister, where persons carrying on the industry fail to agree on the Code, with the assistance of an Advisory Board to be set up under the Act, himself to draw up a Code, which on publication in the Gazette will become binding. Infractions of a Code are punishable by convictions and fine under Sec. 21. Registration and licensing of all persons engaged in an industry can also be enforced under Sec. 13.

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*From information kindly supplied by the Minister of Labour at Ottawa.

Part III of the Act (Secs. 23-28) was to apply to "persons carrying on and engaged in the coal mining industry and distributing, preparing for marketing, processing and marketing of coal and coal products": and Part II was to be read with Part III.

One of the recommendations of the Evans Report was that a coal industry Advisory Council for Alberta should be constituted, consisting of one operator and one miner from the bituminous field, and the same from the lignite and sub-bituminous fields combined, a representative coal dealer and another business man of the Province not connected with the coal industry to represent the general interests of the public, with the Deputy Minister of Mines as Chairman —a total membership of 7 including the Chairman.

Somewhat on the same lines, Section 24 of the Department of Trade and Industry Act gives power to the Minister to appoint from time to time an Advisory Committee to make enquiries into matters relating to the coal industry and to advise the Minister as to the formulation of codes applicable to the coal mining industry as a whole, or to any portion of it.

The Minister referred to in Part III is the Minister of Trade and Industry; it would be advisable that for the purposes of Part III the Minister should be the Minister of Lands and Mines, and the powers of Part III transferred accordingly.

It is also desirable that a permannt Advisory Committee should be set up, and this should be a source of strength to the Minister. The exact constitution of the Advisory Committee is a matter for consideration by the Government, but the recommendations of the Evans Report appear reasonable, accord with the practice in similar circumstances in other countries, and might well be adopted.

I Recommend:

1. That the powers conferred on the Minister of Trade and Industry by The Department of Trade and Industry Act 1934, so far as Part III (and by reference Part II) is concerned should, for matters relating to the Coal Industdy be transferred to the Minister of Lands and Mines.

2. That under the transferred powers the Minister should set up a permanent Advisory Committee.

Sec. 26 of Part III then proceeds to impose on the Minister the duty to *promote conferences,* (1) with those engaged in carrying on the coal industry, and (2) with persons engaged in the sale and distribution of coal, with the following objects:—

(a) The establishment of a *common selling agency* to distribute coal produced by all mines or by any specified class of mine:

(b) The limitation during any specified period of production of coal to the amount of the demand, and to fix the amount of coal (i.e. by means of quotas) which may be produced by each operator:

(c) The promotion of schemes for rationalising the industry so that production is obtained from those mines which are more capable of efficient and economical operation; and the provision for the operator whose production is curtailed of compensation out of the increased profits accruing to operators to whom the additional production is assigned.

It will be seen, therefore, that Section 25 makes provision for *promoting conferences* under the three heads more than once mentioned above—namely Production, Marketing, and Rationalisation or Amalgamation. Part III of the

Act does not impose the duty or give powers to the Minister to go further than the promotion of conferences.

By Sec. 23, Part III of the Act is to be read together with the provisions of Part II; consequently Sec. 5 in Part II, making provision for codes, which in certain circumstances can become compulsory as explained above, is applicable to the coal industry. Such codes, as already indicated, can deal not only with standards of ethics, methods, practices and systems applicable to the trade, but also with standards of prices, and minimum standards as to hours of employment and wages, and that for any class or classes of persons engaged in the industry. Consequently there is power under the Act as it stands, where two-thirds of those engaged in the coal industry agree upon a code and the other formalities of the Act are complied with, not only to put a code in operation, but also to fix prices and regulate hours and wages.

5. Coal Conditions in Alberta Disorganised.

Throughout the enquiry complaints were made as to disorganisation in the coal trade and particularly in the areas, such as Drumheller, producing domestic coal. The difficulties of unrestricted competition, price cutting, unfair practices and so on have not reached such a pitch as in the United States: the amount of coal involved is not as large and the language of the complaints directed to these unsatisfactory conditions is not as strong. At the same time, numerous witnesses urged, in language which became almost monotonous, that what the coal industry in Alberta was suffering from was lack of co-operation, and excessive competition between the various selling units, leading to wholesale price cutting and unfair trading practices; this in turn resulted in depressed conditions for the industry as a whole, losses to shareholders and sweated wages. One prominent Drumheller operator, a staunch and able advocate of individual initiative, himself stated in a Brief submitted in evidence that he considered there was reason and precedent to support the demand for a uniform minimum wage, and he would support "a legal minimum wage applying in the industry throughout the whole of the Province"; and further, he was in favour of a central selling agency under certain conditions for the marketing of coal mined in the Drumheller Valley; he also anticipated that savings resulting from such a central selling agency might amount to 20c a ton (but not 50c or 60c as suggested by some witnesses).

One source of competition of which complaint was frequently made by the larger and better organised undertakings was the small mine.

Small Mines.

The problem of the small mine, and of the unfair competition and price cutting practised by the small operator, was constantly raised in evidence before the enquiry; it was argued that the small mine, with little, if any, plant and practically no capital expenditure, often worked nothing much more than a "gopher hole", usually paid poor wages, and was generally in arrears with taxes and royalties; consequently a small mine could and did put coal on the market at rates unfair to the larger and better organised mines, which tried to pay decent wages and to meet promptly tax and other obligations. Figures supplied by the Mines Branch of mines working with less than five men were:—

Number of mines	151
Tonnage produced	75,210 tons

Doubt was expressed as to whether these figures were complete, but even allowing for a figure of, say, 100,000 tons so produced, it is clear that the output of these small mines is, from the point of view of the industry as a whole and the competition involved, a comparatively small matter, almost negligible in comparison with the total of about 2,500,000 tons output of domestic coal; the competition is more irritating than effective. Evidence was given that miners engaged in these small mines often suffered from low or sweated wages, and proposals are accordingly made later on for fixing a minimum wages for such miners.

The same applies to complaints urged against small farmers or others who, especially in bad times, may be tempted occasionally when mining coal from small pits on their own lands, or from levels along the riverside for their own use, to sell some of it in breach of the regulations to friends or neighbours.

Trucking.

Much the same considerations apply to complaints urged as to unfair or illegal trucking, mainly by those engaged in agriculture: the resulting competition is irritating rather than important. In recent bad times, when agricultural prices have been greatly depressed, farmers have, it is asserted, abused their farmers' truck licenses costing on a rough average about $20.00, and bought coal with a view to peddling out to customers: for this they should in fact hold a proper dealer's license, costing on an average somewhere about $80.00. When times improve and farming again becomes more a whole-time job, farmers will be too busy to peddle coal; if, however, this should not prove to be the case, or the practice develops, government will have to consider dealing with the problem.

Trade Names.

A good deal of evidence, often of a conflicting character, was offered on this subject in the course of the enquiry. Under the provisions of The Coal Sales Act, 1925, the operator of every coal mine in Alberta is required to register a trade name for coal mined therefrom, and all coal must be both sold and shipped under that name; and no coal produced in Alberta shall be advertised or sold except under its registered name. Difficulty, however, arises from the fact that this legislation is not operative outside the Province, and evidence was given that Alberta coal is being sold in neighbouring Provinces under conditions which do not comply with those laid down in The Alberta Coal Sales Act.

In addition, there is provision under Dominion legislation in respect of trade names; evidence was given that Alberta operators in certain cases have availed themselves of registration at Ottawa, and are selling coal under Dominion trade names or titles.

The matter is clearly a difficult one, and one which the Minister of Lands and Mines should refer to his Advisory Committee for examination with a view to definite action.

6. Efforts at Voluntary Organisation in the Coal Industry.

(i) Drumheller.

In view of the unsatisfactory conditions in the domestic coal branch of the industry above indicated, efforts have been made in the last few years by those engaged in the industry to set their house in order. In 1930, at the suggestion of leading members of the Government, the Alberta Domestic Coal Operators

Association came into existence: the objects in view were expressed to be "To maintain contact with all legislative matters, both Provincial and Dominion, affecting the domestic coal industry", and to take action "Upon all questions affecting transportation, including freight rates, car service and demurrage": but negotiations of wage agreements or fixation of prices were expressly excluded.

In November, 1934, the Drumheller operators themselves came together and formed the Drumheller Coal Operators Limited, the management being entrusted to a board of nine directors to be appointed annually by the shareholders: this organisation had in view the regulation of output on a quota basis.

The Evans Report, p. 164, describes at length the operation of the Souris Pool in Saskatchewan and how the producing Pool was supplemented by a wholesale selling agency known as Souris Coal Distributors; and both the Pool and the distributing organisation worked successfully in Saskatchewan until strong competition arose outside the Pool leading to the investigation over which Mr. Justice Turgeon presided in 1934.

Some of the operators in the Drumheller Valley hoped that if a quota system for production could be successfully launched this might lead to the second step of an organised wholesale agency on the lines of the Souris Distributors, or of the Appalachian Coals Incorporated above mentioned.

One of the difficulties from the Operators' point of view was said to be the line grain companies, who were disposed to form buying pools of their own, describe themselves as wholesalers, and demand a discount on that account. The line grain companies, on the other hand, claim that as they distribute to their customers, and discharge the work of both wholesalers and retailers, they are entitled to commissions accordingly. This difficulty was discussed above in Chapter V, *Market in Manitoba.*

The working of the quota system in 1934 in the Drumheller Valley gave interesting results; the sixteen principal operating companies in the Valley who were forming the legal corporation entered into a Memorandum of Agreement, dated the 15th August, 1934, which (Art. 4) defined the percentage of stock to be taken by each of the undertakings. A central selling company was also to be formed which was to be appointed "sole agent, wholesaler and distributor for the operating company"; and each of the constituent companies was to enter into a contract with the central selling company accordingly. But the central selling company could also by agreement arrange for sale by outside wholesalers or agencies (Art. 5). The production of each of the operating companies was limited, the quota allotted being calculated for each mine on a monthly percentage basis, and on a comparison with the monthly average for the previous four years, 1930-1933 inclusive; if a mine was unable to reach its quota tonnage it could apply to the central office to have additional tonnage allotted. Mines which exceed their tonnage were subject to a reduction of quota: also to a fine and those who did not reach their quota received compensation.

Consideration was given to the case of mines recently opened who could not qualify on the four-year basis. A considerable sum was paid into the central office by way of fines by mines exceeding their quota and payments were accordingly made to those who were below their quota. Taking the whole output, the quotas were not realised by a good many thousand tons. This agreement worked during the year 1934-35 reasonably well and large electric and relief contracts were successfully handled; on the other hand, the arrangement was not favourably viewed by some of the wholesale distributors; the central authority also found itself unable to exercise its powers of ordering

discontinuance of sales of any mine where it became evident that the quota would be exceeded.

In January, 1935, negotiations were opened with a view to renewal of the agreement, which only ran till March 31, 1935, for another twelve months. The wholesalers now showed their willingness to co-operate, and retailers took steps to prove that they were anxious that the quota system should be enforced again during the current year. Disagreement, however, arose amongst the operators as to the percentage adjustments, several claiming larger percentage allowances than in the previous year: 85% or thereabouts, of the operators, it is stated, were prepared to accept the percentages of the previous year; others representing 15% were discontented and claimed larger allowances. In the end it proved impossible to come to an agreement to carry on the agreement for another twelve months and this has had, it was reported, already an unfortunate effect on price arrangements for the winter season 1935-36, one witness stating that in fact the whole price structure had to a very large extent broken down. The agreed price in the previous year, with adjustments in certain cases, had been $3.60.

Consideration has also been given in the Drumheller Valley to the third point mentioned above, namely, co-operation in management and finance, i.e. in effect amalgamation: undoubtedly, to judge by experience elsewhere, very definite economies could thereby be effected, profits increased, and the labour force engaged or the major portion of it could secure more regular work and better wages. Proposals for amalgamation have been discussed from time to time, but one of the chief difficulties of the situation is that so long as new pits can be freely opened alongside existing ones, there is little inducement to attempt to combine.

Within recent years expert opinion was taken at Drumheller and a distinguished firm of American consulting engineers were brought in to advise, but no proposals for amalgamation took definite shape.

(ii) Edmonton.

At Edmonton eight or ten leading mines, according to the evidence, had voluntarily come together and formed a small regulating company known as Mutual Coal Sales Ltd. This was done after consultation with the Provincial Government, and the representative of the Department of Labour at Ottawa. The company was on a non-profit basis and no shares were issued beyond the few shares legally required: each operating company entered into an agreement with the Sales Company that it would sell to the latter its entire output of pea slack, nut slack, and nut coal at agreed prices, and to the extent required by the Sales Company. The Sales Company was thus able to arrange contracts which would have been difficult for any one of the operating companies to handle individually; for instance, contracts with big undertakings such as the University. Arrangements were made by the Sales Company with various consumers, different prices being quoted according to the conditions of the contract, difficulties of delivery and so on. The books of the Sales Company were open to inspection by the operators of the ten constituent companies. This appears a satisfactory instance of an experiment in voluntary organisation.

Another instance in the Edmonton area relates to wholesaling. Edmonton is fortunate in that two of the principal wholesalers in the City are friendly and act rather on lines of co-operation than of cut-throat competition. They each represent a certain number of companies with whom they have an agreed list of prices f.o.b. the mine, to which the wholesaler's commission has to be added;

that commission varies in the ordinary course according to the character of the coal and the risk taken as to the retailer's account. The two wholesalers in questoin have a friendly arrangement as to areas canvassed, and so avoid unnecessary overlapping.

Finally, the truckers in Edmonton are also experimenting along the lines of organisation with a view to the avoidance of price cutting and to stabilisation, and evidence was given on behalf of the Truckmen and Coal Haulers' Union to this effect. According to the evidence so given, there are too many truckers in the City, with the result that they have to work long hours to make a very indifferent living. There were some 200 truckers in the Edmonton area, of whom about 50, representing 60 trucks, were in the Truckmen and Coal Haulers' Union. There were also two other Unions, but not more than 40% of all the truckers in the area were organised. The Truckmen and Coal Haulers' Union had an agreement with various operators, and a definite scale of rates per ton hauled, but the truckers did not think that the rates agreed on were sufficiently high.

(iii) Amalgamation.

In addition to the abortive attempts already indicated with regard to the Drumheller field, it is important to bear in mind that two co-operative arrangements have been recently put through, one at Lethbridge which amounts to a definite amalgamation in which Lethbridge Collieries Ltd. took over the assets in the Lethbridge field of the Royalties Oil & Share Corporation Ltd., the Cadillac Coal Company Ltd., and the Canadian Pacific Railway and its subsidiaries, involving four mines—Galt, No. 6 mine, Coalhurst, Cadillac and Federal: the second, in the Crow's Nest Pass, amounts to a working agreement between the International and McGillivray mines where, though the legal existence of the two Companies is still retained, there is in future to be unified management and a common policy; and, as already stated, there is a possibility of another amalgamation of several mines in the Crow's Nest Pass under consideration.

(iv) Unfair Practices.

As already indicated, strong action has been taken in the U.S.A. by means of the Guffey Act, and in Saskatchewan as a result of Mr. Justice Turgeon's recommendations in 1934, to establish codes to promote fair dealing in the coal industry in these areas, and to prohibit improper practices, misrepresentations, payment of secret commissions and so on.

Voluntary attempts to secure similar results have been made in Alberta. The price structure of Alberta domestic coal is based on the price of lower seam Drumheller: it was stated in evidence that during the season 1933-34 the price structure was so chaotic that disaster appeared to face the industry. Under the inspiration of The Department of Trade and Industry Act, 1934, the Alberta Domestic Operators Association appointed a Committee to draft a code, described as a "Code and standard of business ethics", for the domestic coal industry: the Committee drafted a code accordingly, and it was submitted to and accepted by a meeting of the domestic coal operators held in Calgary in April 1934. The basis of the code was that while fair and constructive competition was to be encouraged, unfair competition should be eliminated; the industry owed a duty to the public, to its employees, to its customers, and to the shareholders to deal fairly with its employees, to mine its product efficiently, to eliminate waste, to sell at a fair price, to foster orderly distribution and to encourage sound and fair trade practices.

Certain practices were declared to be unfair; for instance, the selling of coal below a fair market price: no provision appears in the code for fixing the "fair market price", but the Commission was informed that the intention was that this fair market price was to be fixed as follows: each district or the majority of the operators in that district was to apply to the Minister under the Department of Trade and Industry Act, and he would fix a price which would become operative, provided that a 66% majority concurred.

Other practices forbidden were the forwarding of coal which had not been actually sold; the grant of secret allowances, rebates or concessions in adjusting claims with purchasers; allowances or discounts made for the purpose of altering the fair market price; purchasing business by gifts or bribes; misrepresentation of analyses or sizes, or any untrue or misleading advertisements, invoices, etc.; and other provisions very much on the same lines as the code prescribed under the Guffey Act in the U.S.A., and under the Regulations in operation as from September 1st 1935 in Saskatchewan.

In addition, all coal was to be sold by producers or wholesale distributors f.o.b. the mine, or f.o.b. destination, railway shipment of rates to govern settlement, at prices in effect at the date of shipment. No allowances were to be made to a customer from the fair market price by reason of slack, bone or rock, etc., unless adjusted on the basis of actual weight of such slack; terms of sale were to require payment within from 30 to 45 days from date of shipment; there was also a provision that prices charged for coal loaded into trucks at the mine should be no less than 25c per ton higher than the fair price of coal loaded into railway cars.

In spite of the fact that this code was unanimously* adopted at the meeting of domestic operators in April 1934, as indicated, the code has not in fact been put in operation.

7. Organisation in the Future.

The enquiry disclosed the opinion generally held, at any rate by a large number of operators and those interested in the coal industry in all its branches in Alberta, that not only was much of the industry in an unsatisfactory condition due to excessive and unregulated competition, price-cutting, unfair practices, etc., but that some measure of better regulation was necessary in the future if the industry was to progress and develop as it should do.

The experience of other countries engaged in the coal industry, and particularly of the neighbouring areas of the U.S.A. and Saskatchewan, point to the need of regulatory provisions where similar conditions exist. The Domestic operators in the Drumheller district have, as already outlined,—

(a) In 1934 drafted a Code of fair practices; and

(b) Adopted in 1934-35, though only for one year, a scheme for regulating the output of their mines (coupled with proposals in the scheme for a Central Selling Agency):

they have themselves, in other words, not only indicated the need of regulation; but also the lines along which it should proceed.

The coal industry in the Province of Alberta will undoubtedly be at a disadvantage in many ways if, while her neighbours and competitors accept proposals for better regulation of the coal industry in those areas, Alberta

*It was stated that one leading operator, who had formed one of the drafting Committee, and who had attended the general meeting in April without expressing dissent, subsequently withdrew his approval.

continues to put up with the evils which result from unregulated competition. As indicated in Chapter V on the possible market in the U.S.A., this feature is already being emphasised on the other side of the border.

The industry itself has shown by the tentative efforts indicated above that the need for better regulation in certain directions is realised, but in view of the experience in other countries, and also the fact that the experiments in Alberta have on more than one occasion broken down through the action of minorities, the question arises whether some steps should not be taken by the Government to assist the industry, first of all by giving a lead and suggesting lines along which the industry might itself proceed to better ordered conditions; and secondly in cases where the industry, or particular branches or districts of it, desire by a considerable majority to initiate regulatory measures, and the majority are held up by an obstructing minority, whether the Government should not, subject to all proper safeguards and after due enquiry, grant to the majority in the industry compulsory powers so that the views of the majority may prevail.

Voluntary organisation in the industry, by the industry, for the industry (the public welfare being always borne in mind), is undoubtedly the ideal, but as experience in other countries shows, this ideal in a troubled and contentious world is often difficult to realise without some Government assistance.

8. Board to Manage the Coal Industry Not Desirable.

Professor Pitcher, in his evidence before the enquriy, suggested the constitution of a Board under Government auspices with power to control and manage the industry as a whole. Such a Board presumably would be of the nature of a public utility Commission; it was not clear from Professor Pitcher's evidence precisely what the extent of the Board's powers and duties were to be; presumably, if developed to the furthest point, they would amount to what is usually understood by nationalisation. A Council or Board with any such wide powers would not be likely to be acceptable to the operators as a whole, though it might win some acceptance amongst the miners, but in view of the difficulties involved and of the opposition it would certainly arouse, it is not for the purpose of this Report necessary to consider the matter further.

It is necessary, however, to mention in this connection the relation of the coal industry in the Province to its principal competitors—natural gas, naphtha in the Turner Valley, and also oil and electricity. As to natural gas, as stated above in Chap. V evidence was given before the Commission at considerable length at Edmonton, first of all by Mayne Reid, K.C., on behalf of the coal operators, who desired restrictions imposed on the development of the gas resources of the Province in the interests of the coal operators; and secondly by Mr. H. R. Milner, K.C., on behalf of Northwestern Utilities Ltd., demonstrating clearly the use being made by the community of gas, and the probability of extension of the use of the supply, especially for the City of Edmonton, in the near future.

The competition of electrical, and especially of hydro-electrical, output has been mentioned already, and the supply of naphtha and gas in the Turner Valley, large as it is at present, may at any moment develop along lines which will secure for Alberta further cheap supplies of fuel: on the other hand, the supplies of gas in Alberta may, as in some gas areas in the U.S.A., tend to diminish, or even die out altogether. The interests of the public are obviously the chief consideration, but Government has taken upon itself, as indeed it is

bound to do, responsibility for defining in certain cases the development of these various fuel resources. For instance, the policy has been laid down that natural gas is not to be marketed outside the Province.

While the interests of the consuming public and the need for efficient and economic fuel are the principal considerations, the Government cannot afford to ignore the industrial prosperity of the Province generally, and particularly of the coal industry, which represents so large a proportion of the wealth and resources of the Province, and which also gives employment to so considerable an amount of labour. It is therefore desirable that Government should keep a close watch on the interplay of these various forms of fuel supply, and if necessary that a small regulatory commission should be set up to keep the problem under constant survey with a view to seeing that fair consideration is given to all the various interests concerned.

9. Control of Development.

It is obvious that little good can be done by proposals for stabilising the coal industry in Alberta as it exists today, or improving its position and prospects, unless strict hold can be kept upon the opening of new pits. Expectation in the coal industry is naturally directed towards the improvement of trade and the consequent increased demand for coal, but that in itself will be of little advantage if, directly the demand improves, more pits are opened, production is again in excess of demand, competition again becomes as severe as ever, and prices again collapse with consequent inevitable losses to capital and depreciation of wages.

The Evans Commission considered this question of the opening of new pits and recommended, first, a complete tabulation of existing leases with a view to the insistence on the strict observance of all obligations as to payment of rental and so on; the purpose of this was to recover as large a proportion as possible of leased lands not required for development, on the ground that such leases were really held as matters of speculation. In the last ten years Government has been active in this matter and official information was given in the course of this enquiry that the number of coal mining leases now possibly subject to cancellation on the ground of non-payment of rent and royalty did not exceed 70, representing an area of 7,595 acres.

Secondly, the Evans Report recommended that the next step would be to delimit the areas of coal of immediate practical importance, and to examine carefully the ownership and control of the coal rights within such areas; when these two steps had been taken, the third and final step was to be a firm policy in respect of new development on Government owned and controlled land within the delimited areas.

As pointed out in Chapter II above, *Coal Resources and Ownership*, the undeveloped coal lands are held approximately in the following tonnage percentages: Operating Companies, 14%; Alberta Government, 60%; C.P.R. and H.B.C., 5%; others, 21%: and so far as conditions of tenure are concerned, the acreages are, in round figures: Freehold without royalty, 36,000; freehold with royalty at 7c per ton, 41,000; leasehold with royalty at 5c per ton and an annual rent of $1.00 an acre, 93,000; leasehold from owners others than the Provincial Government, 9,000; any other form of tenure, 2,000.

In early days, the Crown in the right of the Dominion alienated freehold lands to the Hudson's Bay Company, to the Canadian Pacific Railway Company, to the Calgary and Edmonton Land Company, and in a few cases to

homesteaders and other private persons. Since 1907 the Crown in the right of the Dominion had ceased to alienate minerals by freehold title, and has substituted leases for 21 years, renewable for a further similar period: and since 1930 the Provincial Government has disposed of mineral rights in the same way.

In the large majority of leases above mentioned, the rents payable are, as stated, $1.00 per acre, with a royalty of 5c per ton; the lessee may also be required to commence operations within one year from the date when he is entitled to do so by the Minister, and to produce from such operations a specified quantity of coal.

Provision is made for taxation of minerals for local purposes under The Municipal District Act and The Improvement Districts Act, all mineral including coal being assessed "at the fair actual value"; and there is a similar provision with regard to the taxation of minerals within a school district. Consequently, every person who owns or has a lease of coal is required to pay taxes on the "fair actual value" for local purposes and for school purposes.

Corporations such as the C.P.R. and the H.B.C. who have obtained freehold coal lands and also persons who have obtained leases from the Crown, have frequently leased or sub-leased, as the case may be, considerable areas of coal lands to other persons; and in the case of the C.P.R. and the H.B.C. the royalty exacted is usually 10c. In the case of sub-leases the royalty not infrequently exceeds 20c per ton.

It is thus clear that any proposals for the regulation of the opening of new pits presents problems of considerable difficulty; it is true the Government, if such a policy is decided upon, has full control over the 60% of undeveloped coal lands which they hold, but with regard to the remaining 40%, private interests have to be considered, not only because of the freehold or leasehold rights held, but because in fact rentals or other charges have for varying periods of time been paid, and also such lands have been assessed, generally speaking, by the State on the basis of a "fair actual value" and taxes per mill have been paid thereon.

Information was in fact given to the Commission that holders of large tracts of undeveloped land had on occasions requested the Government to levy taxes on their mineral rights with the express object of establishing ownership. Information was also given that there was considerable difficulty in estimating the fair actual value required for the assessment of undeveloped minerals; frequently, tax was levied on a nominal and notional assessment of $20.00 to $40.00 per quarter section.

It is clear that a definite policy regulating the control of the opening of new pits is desirable, but so far as the 40% of lands not held by the Government is concerned, this can only be done either by arrangements come to with the owners of mines or leases above described; or else by Government enacting legislation imposing restrictions on development, and paying proper compensation; such compensation would clearly run into large figures and is not, for various reasons, desirable.

It is obvious that mere speculators, even if they have been paying the rental of $1.00 an acre and also taxes on what clearly have been generally nominal assessments, do not deserve any special consideration; while holders of large tracts who are themselves genuinely engaged in the industry and have taken up land with a view to legitimate development, can clearly demand that their rights shall be adequately protected: at the same time, it is to be borne in mind that they have themselves a big stake in measures directed to the protection of

the industry and its orderly progress. The authorities of the C.P.R. expressed their willingness to co-operate in the proposal to restrict the opening of new pits for five years, subject to the reservation of one or two existing commitments, which provide merely for transfer to new areas of existing operations and do not involve new competition.

Canadian National Railways have no financial interest in coal properties in Canada but as large users of Alberta coal have expressed themselves in favour of general policy of restricting opening of new mines unless market is available for additional tonnage produced.

The Governor and Committee of the Hudson's Bay Company have expressed their willingness to co-operate in the proposal to restrict the opening of new coal pits in the Province of Alberta for a period of five years subject to reservation as regards existing leases and options.

I Therefore Recommend:

1. That the Government should definitely announce a policy of refusal, save in exceptional circumstances, to grant new leases of undeveloped minerals in respect of Provincial lands for a definite period, say the next 5 years, the policy to be subject to reconsideration at the end of that period.

2. That the Minister of Lands and Mines should take steps to make arrangements with freeholders and leaseholders of undeveloped lands on the following lines:—

(a) That any obligation to commence active operations within a specified time, or to produce a specified quantity of coal, should during such period of 5 years be inoperative;

(b) That existing freeholders and leaseholders should during the same period of 5 years be granted remission of State charges, rentals, taxes, etc., either in whole or in part, provided that in consideration of this remission they are prepared to surrender during the period all rights of opening and developing new pits; provided further that if and when trade improves and the market requires an increased output, those freeholders and leaseholders who have accepted this arrangement should be given preference in applying for licence to commence new operations;

(c) These arrangements for restriction not to apply to lands already held by operators as a necessary part of existing mines and *bona fide* required for development in the normal course of working during the next 5 years.

10. Need of a Code.

The Saskatchewan Code, as above mentioned, came into operation as from 1st September last, and it is too early yet to form a definite opinion as to the acceptance or otherwise of the code by the industry in Saskatchewan, or as to the effect it is producing upon the sale of coal in that Province.

Steps were taken during the present enquiry to consult in writing a few leading operators and others connected with the coal industry in Saskatchewan, and the replies received may be summarised as follows: three were generally favourable, one, in an official position, felt himself unable to express a definite opinion, and one was definitely opposed on the ground that Government should leave the industry alone, and that amalgamation was the only ultimate solution.

In view of the general complaint in Alberta of unfair practices, and in view also of the voluntary code which some of the domestic operators had tried to

put through in 1934, it was desirable to try and ascertain the opinions of leaders of the industry in Alberta as to the applicability in this Province of a code on similar lines. A letter was accordingly addressed, enclosing copy of the Saskatchewan Regulations, to some 32 operators (domestic and steam) and to one or two others occupying leading positions in connection with the Alberta coal industry—as, for instance, Mr. H. M. E. Evans, Chairman of the Commission in 1925—and asking for an expression of opinion as to whether regulations of a similar character were desirable in the Alberta coal industry or any branch of it.

It is not possible to give the replies at length, but shortly summarised, fourteen operators (steam and domestic), three wholesalers and three others, twenty in all, declared themselves, though in certain cases with reservations, in favour of regulations for the Alberta industry, or the domestic portion of it, generally on the lines of the Saskatchewan code: six declined to express a definite opinion, and six pronounced themsleves as definitely opposed.

(i) A Code.

In view of the disorganised conditions in the domestic branch of the coal industry in Alberta, and of the unfair practices complained of; and in view of the opinions of leading representatives of the industry outlined above, the Minister should take steps forthwith, under the Department of Trade and Industry Act, Sec. 5 (assuming the necessary powers are transferred to him), to arrange conferences with a view to formulation of a code of methods and practices applicable to the domestic branch of the industry; the code would, in accordance with Sec. 5, be in the first instance put forward by those engaged in the industry itself, but would be subject to the Minister's approval.

There is power under Sec. 5 to include in the code the establishment of standards of prices below which coal cannot be sold, whether wholesale or retail, and also minimum standards of wages for any person or classes of persons employed in the industry. Provisions as to these two points—regulation of prices and fixation of a minimum wage—are of great importance and require full and careful consideration.

(ii) Price Fixation.

In the Saskatchewan Regulations, prices are fixed, apart from voluntary agreements approved by the Minister, in Sec. 16(2) of the Regulations: they are minehead prices and are to be enforced under the licensing provisions of the Coal Mining Industry Act 1935, Sec. 4, and an operator selling at a lower price runs the risk of having his licence withdrawn and his pit closed. These provisions are presumably valid in the Province of Saskatchewan, and as the greater part of coal mined in that Province is also sold there, difficulties of legal enforcement outside the Province may not be likely to arise.

On the other hand, much Alberta coal is sold outside the Province, and in view of the decision in Lawson vs. Interior Tree Fruit & Vegetable Committee of Direction, 1931, S.C.R. 357, there is a risk that similar regulations as to price fixing, if adopted in Alberta, might be held *ultra vires* of the Province, as relating to matters of trade and commerce which fall exclusively within the jurisdiction of the Dominion Parliament.

High legal authority when consulted indicated that the matter was by no means free from doubt, but that probably the Alberta Legislature might validly enact that all coal, or any specified kind of coal, mined in the Province should be sold by or under the direction of some specified marketing agency; and that the pithead price should be some prescribed amount.

This is an additional reason for examining with care the question of setting up a central selling agency, either for the whole domestic coal branch of the industry, or for portions of it.

(iii) MINIMUM WAGE.

It did not appear necessary, so far as evidence at the enquiry went, to consider the application of minimum wage regulations either to the whole industry, or to the whole domestic branch of it. On the other hand, it is desirable, as indicated above, to establish a minimum wage for the small mines, and this should be taken in hand forthwith. Probably the provisions of Secs. 5, 6, and 10 of The Department of Trade and Industry Act arm the Minister with sufficient legal authority for this purpose; if not, additional powers on the lines of the British Trade Boards, referred to above, should be obtained from the Legislature. The exact definition of a small mine for this purpose, whether one employing 5 persons and under, or some larger number, will require careful attention.

In view of all these circumstances,

I RECOMMEND:

(i) That the Minister of Lands and Mines should exercise his transferred powers under Parts II and III of The Department of Trade and Industry Act, and should invite operators, miners and distributors and others carrying on the coal trade in the Province to appoint representatives to confer with him for the purpose of formulating a code of methods and practices applicable to the coal trade with the object of putting an end to competitive practices detrimental to the trade, to those engaged in it, and to the public.

(ii) That the Minister should also take the necessary steps, under the transferred powers of Parts II and III of The Department of Trade and Industry Act, by means of conferences with persons engaged in the Domestic Coal industry or with the class of them affected, with a view to the establishment of:—

(a) Pithead prices in the domestic coal industry or portions of it;

(b) A minimum wage for those engaged in small mines;

(c) Any other Regulations within the provisions of Part II and Part III of The Department of Trade and Industry Act considered after conference to be desirable.

11. Quotas—Central Selling Agencies—Amalgamation.

(i) DOMESTIC COAL.

(a) *Quotas.*

The experiment of the domestic operators in the Drumheller Valley who in 1934-5 put into practice a regulated system of output, with allocation of quotas to each of the sixteen mines taking part in the arrangement, has been already described. It is unfortunate for the domestic coal industry in Alberta that this useful experiment broke down, and was not renewed for the current year: this breakdown has already, according to the evidence, resulted in a collapse of the price structure, which had been successfully maintained during the previous season.

As outlined above, an essential feature of the quota system in the tin industry, and also in Germany and Great Britain with regard to coal, is the

owner's right to sell for a period the quota when fixed; this power of selling quota has been found to be of considerable importance; it enables the owners of the small and poorly organised mines to secure compensation in respect of past outlay, and that if desired without continuing to operate the mine; this often leads to amalgamations on sound economic lines: what Sir Adam Nimmo called "elimination by inducement." Power was given to the Minister under Part III, Sec. 26 of The Department of Trade and Industry Act to promote conferences with a view to limiting, during any specified period, production of coal and adjusting such production to the market demand; and also with a view to obtaining production from the more efficient and economically operated mines: these clauses embody the principle of what is usually known as quotas.

(b) *Central Selling Agencies.*

Those operating the Souris Pool in Saskatchewan found, in the early years and up until difficulties arose about 1933-34, that the Souris Pool Distributors was a useful feature of the whole organisation and a desirable adjunct to the Pool itself. In that case, Souris Distributors, which handled all the output of the pool, was organised by the distributors themselves; the wholesalers employed by the mines forming the Pool all got together and formed the distributing company. Similarly, in the Drumheller experiment of last year, provision was made in the agreement for a joint wholesale selling organisation which was to function as an adjunct to the output pool; but this wholesale selling arrangement never in fact came into operation.

An area or district such as the Drumheller Valley (assuming that the output had been organised adequately on a quota basis) would undoubtedly secure certain advantages if it could also adopt one wholesale disturbing association. The output quota scheme itself would result in savings and more stable prices, while additional economies would be effected and further savings secured if a single unified distributing association could be the next step. Existing wholesalers, on the other hand, naturally feel some difficulty: they admit that possibly over-lapping might be avoided and economies effected in consequence, but each has a not unnatural anxiety as to how his own business might be affected.

The Coal Sellers Co. Ltd. was quoted in the Evans Report as an example of a successful and economic distributing agency under present conditions, and the same can be said of that Company to-day: the Great West Coal Co. has also an effective organisation in this field. The principle of the Edmonton experiment, where two important wholesalers have come to an arrangement based on friendly avoidance of over-lapping, and on division of territory for their respective operations, must be borne in mind and adjustment between existing distributors in the Drumheller Valley might well be worked out on similar lines; or, in the alternative, all the distributors for the district might, by conference, agree themselves to form the distributing company, as was done by the Souris distributors.

Powers were expressly conferred on the Minister under Part III, Sec. 26 (i) of The Department of Trade and Industry Act to promote conferences with those engaged in the distribution and sale of coal, with regard to the establishment of a common selling agency to distribute and sell coal from all mines, or from any specified class of mine. As indicated above, if price fixing is to be established, there may be legal advantages to be derived from setting up such a common selling agency.

(c) *Amalgamation.*

Evidence was given that efforts at amalgamation had been made in the past in respect of various undertakings in the Drumheller Valley: several witnesses indicated that in their view this was the proper and, some said, the only feasible method of securing reasonable conditions in that area. Such amalgamation might be either of a limited number of interests, or of all the undertakings operating in the Valley, and would be a matter to be worked out between the interests concerned and after full consideration of all the features of finance and coal resources involved. If a proper system of quota distribution could be established in the Drumheller Valley, that would probably pave the way for a good many amalgamations of smaller pits with larger ones.

In view of all the above considerations, the time has come when the Minister should make use of his powers under Sec. 26(c) of The Department of Trade and Industry Act, 1934, and promote conferences with a view to schemes for rationalising and amalgamating interests in the domestic coal industry and particularly in the Drumheller Valley.

In Great Britain, as already mentioned, powers are given to the Coal Mines Reorganisation Commission to promote schemes of amalgamation, and if necessary to enforce them compulsorily. There is no similar power at present given under Part III of The Department of Trade and Industry Act, 1934, to the Minister to enforce quotas, common selling agencies, or amalgamation, nor is any such compulsory power at this stage necessary; the Minister will be able to consider, in the near future, after conferring with his Advisory Committee, whether any compulsory powers of enforcement should be sought from the Legislature.

I Therefore Recommend:

1. That the Minister of Lands and Mines should, after conferring with his Advisory Committee, exercise his transferred powers under Sec. 26 of The Department of Trade and Industry Act, 1934, to promote conferences with those engaged in the domestic coal industry and also those engaged in the business of the sale and distribution of such coal for the following purposes:—

(a) The establishment of a rationalising scheme or schemes with a view to the regulation of output on a quota basis for the domestic mines in the Province, and particularly in the Drumheller Valley; and also with a view to the limitation or adjustment of the output from the mines affected.

(b) The establishment of a central or common selling agency for the Drumheller Valley, and any other portion of the Domestic Coal Industry, where such an agency may prove to be desirable.

(c) The consideration of schemes of rationalisation or amalgamation of mines or undertakings in the domestic coal industry, with a view to securing that production may be obtained from those mines which are more capable of efficient and economical operation.

(ii) Steam Coal.

Figures indicating the statistical importance of this branch of the industry are given above. Approximately, the output of the three branches of the industry is: Domestic, 2½ million tons; sub-bituminous, ½ million tons; bituminous, 2 million tons. The steam coal or bituminous branch of the industry is in many ways in a different position from the sub-bituminous and lignite

mines: the operators are a small and compact group of tried ability and experience and the mines are, generally speaking, big industrial undertakings representing large capital outlay: 80% or thereabouts of the total output of the big bituminous mines is taken by the two Railway Companies, the C.P.R. and C.N.R.

At the enquiry at Blairmore, Mr. D. G. Mackenzie K.C. presented a brief on behalf of the principal steam coal undertakings, as follows: McGillivray Creek Coal & Coke Co. Ltd., International Coal & Coke Co. Ltd., West Canadian Collieries Ltd., Mohawk Bituminous Mines Ltd., Hillcrest Collieries Ltd., Canmore Coal Co. Ltd., Mountain Park Collieries Ltd., Luscar Collieries Ltd., Cadomin Coal Co. Ltd., Brazeau Collieries Ltd.: operators also supplemented the general brief with verbal evidence: points arising and of importance for this enquiry were:—

(a) *Irregular Employment.*

Reference was made to the Evans Report, p. 235 etc., and the proposal there outlined that the best hope for remedying irregular seasonal employment lay in an organised arrangement for transferring miners from the bituminous to the domestic field and vice versa. The evidence given indicated that, largely owing to the depression, such a policy of organized transfers had proved unworkable; attempts had been made to arrange transfers as between Sunders Creek and Blairmore, but had not been very successful. On the other hand, recent efforts of the Railway Companies to distribute their orders more evenly throughout the year were working satisfactorily; the Railway Companies are in fact taking in the summer months rather more than their normal requirements, and putting this into stock, so that car equipment may be available in the fall for the movement of grain. This is in pleasant contrast to the domestic branch, where little mining to speak of is done during the summer months. The steam companies were looking to the Railways to help them by transporting in future more coal in open coal cars and less in box cars; box cars were effective in the case of the transfer of domestic coal, which was thus protected from deterioration by rain or sun; on the other hand, steam coal is apt to suffer from crushing when loaded into a box car.

(b) *Equipment.*

Steam collieries, with a view to reducing cost of coal so as to meet competition, have been steadily increasing the use of labour saving machinery, and the steam coal mines are equipped, for the most part, as already indicated, with up to date appliances. With a view to improving the quality, reducing ash content, and making the product more uniform, washeries have also been installed at several mines; while the washed coal does not command a higher price, the Companies are now able to put on the market coal which, if not treated in the washery, would not be up to the required standard. The Companies were unanimously in favour of all reasonable safety devices, but complained that they were hampered in the introduction of electrically driven machinery, and asked that, at any rate in certain areas, e.g. storage battery locomotives might be used under conditions similar to those in force in Great Britain.

(c) *Oil in Locomotives.*

The consumption of oil by the Railways, it was stated, was tending to increase, and it was suggested that careful attention should be given to this problem. If the policy of the Railway Companies was to be a large extension

of oil consumption, this would seriously affect the coal industry of the West, on which the industrial progress and prosperity of the West largely depended. On the other hand, as indicated above in Chapter V, the official figures show that for the Prairie Provinces oil consumption by the Railways remains fairly stable.

(d) *Closing Pits.*

It has been suggested that during the period of depression, it would be economic to close some of the steam pits and only work the remainder, but the steam operators giving evidence were opposed to this, partly because it would have the effect of putting a number of miners out of employment; admittedly it should mean that miners still employed would get more regular work, but as it was hoped that trade would shortly improve, they thought the better policy was to carry on as at present. There would also be a danger that if a pit were closed, this would mean the abandonment of that mine, as too great expense would be involved in keeping up timbering, airways, and repair work.

On the other hand, the brief strongly urged that the Government should prohibit, or keep a tight control over the opening of new pits, at any rate for a period and until the trade depression seemed likely to blow over. The brief also approved the policy of a central selling agency in respect of all bituminous coal mined in the Province, but in respect of the 20% to 25% of the output of the steam coal mines sold for industrial purposes, and not in respect of the 75% to 80% sold to the Railway Companies. Admittedly there had been ruinous competition in the markets where Alberta coals competed with one another, and a central selling agency would eliminate this, and reduce the costs of marketing and advertising.

(e) *National Policy.*

In addition, the brief advocated a national fuel policy; the Dominion Government, it was alleged, had come to the assistance of other industries, and particularly agriculture, to a much greater extent than it had helped the coal industry; the policy of subventions should be maintained and developed, and while the subventions at present in force had materially assisted Nova Scotia, the same could hardly be said so far of Alberta and Eastern British Columbia. Of the total coal moved under subvention from Eastern or Western Canada into the acute fuel area of Ontario and Quebec, approximately 70% was moved from Nova Scotia anly only 14% from Alberta and the bituminous mines of Eastern British Columbia.

It was desirable that the Provincial Government, and also the Dominion Government should consider carefully the system of zoning put forward by Colonel Villiers; as an alternative, a system of compulsory quotas was worth examination; and the method of such compulsory quotas for imported coal at present in use in France was outlined by one experienced operator who is in contact with the French quota procedure.

(f) *Conclusions.*

No mention was made in the brief of the need of amalgamation, of a code to stop unfair practices, or of price fixation. The steam coal branch is, generally speaking, better organised and in a stronger position to regulate effectively its own practices, prices, and marketing arrangements than is the Domestic branch; and evidence before the Commission did not disclose the same need for regulation.

It is also to be borne in mind that an amalgamation or working agreement has recently, as indicated above, been put through between the McGillivray Creek Coal & Coke Co. and the International Coal & Coke Co., and there are rumours of a further amalgamation of the three or four other leading collieries in the Crow's Nest Pass. Amalgamation or joint working agreements on the lines already adopted by the McGillivray and International Companies is probably in the best interests of this branch of the industry as a whole, both operators and miners. It has been suggested that Mountain Park and Luscar Collieries which are at the moment being operated by a joint General Manager and whose shareholding interests are, it is understood, to a large extent identical might be disposed to consider amalgamation or working arrangements.

With regard to a code the leading steam coal operators, as stated above, were consulted as to the desirability of a code for steam coal somewhat on Saskatchewan lines: two of three favoured such a code, one or two others expressed doubt.

It is not necessary in respect of steam coal at the moment to make any recommendations either as to setting up of a code—or as to the exercise by the Minister of any powers under Sec. 26 of The Department of Trade and Industry Act with regard to the establishment of a scheme for quotas; or for rationalisation. The suggestion contained in the steam coal operators brief that a central selling agency should be established, in respect of the 20% or so of steam coal sold to industrial undertakings, and not to the Railways, should receive attention; and if a considerable proportion of the operators make application, the Minister should exercise his powers under Sec. 26 (a) of the Act to promote a scheme accordingly.

Lastly, as to adjustment of prices with the Railway Companies, the C.N.R. and C.P.R. are by far the largest purchasers of coal produced by the bituminous pits and take between them approximately 80% of the output.*

It is frankly admitted by the leading operators that the Railway Companies have in the past treated the industry not unfairly in the matter of price; but there is this difficulty, that the two Companies appear to act on common lines when considering prices of coal to be taken from the steam coal operators: on the other hand, there is no similar co-operation between collieries when negotiating with the Railways; consequently the principle of "collective bargaining" is not effectively applied.

Some years ago the price paid by the Railways was as high as $4.75; two years ago it was $3.40; this year the price is graded from $3.20 down to $2.90, descending according as the amount of coal taken from a mine increases, with an average price approximately of $3.00 to $3.10 per ton. This a considerable reduction below the previous price, and still more as against the price of twelve years ago. Meanwhile, it is fair to say there has been no corresponding reduction of freight for coal hauled, nor any general reduction in the miners' wage scale, though there have been minor adjustments. Assuming that a collliery secures a contract of 500,000 tons from the Railway, this would be on the lowest scale of payment, i.e. $2.90 or a drop of 50 cents a ton from the recent price: the large order would mean more continuous work for that pit and consequent reduction of proportion of overhead charges, but such reduction is hardly likely to be as great as 50 cents a ton: reason was given in Chapter IV for thinking that 40 cents would be a fair approximate average for the industry as a whole:

*See Report of Mines Branch, 1934, p. 24.

but in steam coal, where, as stated, operation is generally more continuous and evenly distributed, the margin is probably considerably less.

The profit as shown in the tables prepared from the answers of operators to Questionnaires given above for the last 3 years for steam coal mines is about 13c per ton. A reduction on the average of 25c or so per ton on coal purchased last year, and more in previous years, by the Railways is likely to go far not only to eliminate the 13c profit, but to inflict a loss. This may have the result in its turn of depressing wages and causing unsatisfactory conditions, not only for the shareholders, but also for those directly engaged in the industry.

During the War, prices were fixed as between the steam operators and the Railway Companies on the basis of cost plus a reasonable return on capital.

It is a matter for consideration whether, in the interests of the industry, including both operators and miners, and also of the public, who will suffer if one of the successful industrial activities of the Province, employing a large labour force, is prejudicially affected, Government should not consider the desirability of proposing conferences between the Railway Companies and the steam coal operators, with a view to assisting in the adjustment, year by year, of a fair price.

APPENDIX I.

AGGREGATE PROFITS AND LOSSES

The following tables prepared by the Provincial Auditor give for all reporting mines the aggregate profit and loss for the fiscal years 1932-3, 1933-4 and 1934-5, according to results by individual mines and individual years. The mines included in this table produced about 62% of all coal.

A.

	Tons of merchantable coal.	Average profit or loss per ton	Profit or loss.
Aggregate of profitable operations	4,431,493	Profit about 29c	$1,274,050.53
Aggregate of unprofitable operations	4,431,547	Loss about 25c	1,115,033.94
All operations	8,863,040	Profit about 2c	$ 159,016.59

Very similar figures are arrived at if they are aggregated according to results by individual mines for the whole four years' operations.

The figures showing by years for all reporting mines in the Province the aggregate profits of those mines making a *profit* in that year are:—

B.

Year.	Number of mines.	Tons produced at a profit.	Average profit per ton.	Profit.
1932-33	13	1,631,311	About 31c	$ 505,973.49
1933-34	8	1,028,440	" 32c	324,205.54
1934-35	16	1,771,742	" 25c	443,872.50
All three years		4,431,493	About 29c	$1,274,050.53

The figures of the above table are comparable with those given in the Evans Report, though at that time the figure of profit given was only .885c.

Similar figures indicating the aggregate losses of those mines making a *loss* in that year are:—

C.

Year.	Number of mines.	Tons produced at a loss	Average loss per ton.	Loss.
1932-33	23	1,171,301	About 40c	$ 468,595.03
1933-34	28	1,880,116	" 16c	335,845.34
1934-35	20	1,380,130	" 23c	310,593.57
All three years		4,431,547	About 25c	$1,115,033.94

The figures in the above tables, when worked out separately for bituminous, sub-bituminous and domestic coal, are as follows:—

I. *Bituminous,*
representing about 91%.

A.—Aggregate Profit or Loss per ton:

	Tons of merchantable coal.	Profit or loss per ton.	Profit or loss
Aggregate of profitable operations	3,369,074	Profit about 33c	$1,114,908.93
Aggregate of unprofitable operations	1,810,034	Loss about 25c	454,536.04
All operations	5,179,108	Profit about 13c	$ 660,372.89

It has been suggested that during the period o fdepression, it would be

B and C.—Annual net Profit and Loss:

Year.	Total Profits.	Total Losses.	Net Profit.
1932-33	$ 425,791.39	$111,685.23	$314,106.16
1933-34	277,110.90	114,921.35	162,189.55
1934-35	412,006.64	227,929.46	184,077.18
All three years	$1,114,908.93	$454,536.04	$660,372.89

II. *Sub-Bituminous,*
representing 52%.

A.—Aggregate Profit or Loss per ton:

	Tons of merchantable coal.	Profit or loss per ton.	Profit or loss.
Aggregate of profitable operations	341,084	Profit about 19c	$ 65,192.12
Aggregate of unprofitable operations	513,009	Loss about 26c	133,844.92
All operations	854,093	Loss about 8c	$ 68,652.80

B and C.—Annual Net Profit and Loss:

Year.	Total Profits.	Total Losses.	Net Loss.
1932-33	$14,437.02	$ 58,964.99	$ 44,527.97
1933-34	33,827.89	44,737.83	10,909.94
1934-35	16,927.21	30,142.10	13,214.89
All three years	$65,192.12	$133,844.92	$ 68,652.80

III. *Domestic,*
representing 39%.

A.—Aggregate Profit or Loss per ton:

	Tons of merchantable coal.	Profit or loss per ton.	Profit or loss.
Aggregate of profitable operations	721,335	Profit about 13c	$ 93,949.48
Aggregate of unprofitable operations	2,108,504	Loss about 25c	526,652.98
All operations	2,829,839	Loss about 15c	$432,703.50

B.—Annual net Profit:

Year.	Number of mines.	Tons produced at a profit.	Average profit per ton.	Profit.
1932-33	5	222,885	About 30c	$65,744.08
1933-34	2	117,746	" 11c	13,266.75
1934-35	8	370,704	" 4c	14,938.65
All three years		721,335	About 13c	$03,949.48

C.—Annual net Loss:

Year.	Number of mines.	Tons produced at a loss.	Average loss per ton.	Loss.
1932-33	10	695,002	About 26c	$181,700.58
1933-34	14	805,345	" 22c	176,186.16
1934-35	12	608,157	" 28c	168,766.24
All three years		2,108,504	About 25c	$526,652.98

Average Total Cost and Revenue Per Ton.

A further table has also been prepared by the Provincial Auditor's Department, showing for all reporting mines, by character of coal, for the fiscal year 1934-35, the average total cost and the average total revenue per ton with the resulting average profit or loss per ton, and an indication of the reporting base as the percentage which the output bears to the total output of the Province.

	Percentage Reporting.	Average total cost per ton including Government Income Tax.	Average Proceeds per ton.	Other Revenues per ton.	Average total Revenue per ton.	Average Profit or Loss per ton.
Bituminous Mines	98%	$3.11	$3.18	9c	$3.27	+16c
Sub-bituminous Mines	53%	2.72	2.45	19c	2.64	— 8c
Domestic Mines	44%	2.61	2.42	6c	2.48	—13c
All Mines	66%	$2.92	$2.87	9c	$2.96	+ 4c

The above table has been prepared on the basis of the adjusted figures for 1934-35 as used in preparing tables showing the results of operations for the years 1932-33, 1933-34 and 1934-35.

APPENDIX II.

ANALYSES OF COAL.

1. An analysis made in 1925 on behalf of the Scientific and Industrial Research Council of Alberta, conducted by Messrs. Edgar Stansfied, Robert T. Hollies and William P. Campbell.

2. The Report of a Commission, dated 24th April 1928, definitely appointed to enquire into and recommend Alberta coals for sale in the Province of Ontario. The Commission, over which Mr. R. J. Dinning presided, consisted of Messrs. R. G. Drinnan, W. McNeill and E. Stansfield, together with Mr. J. A. Ellis, at that time Fuel Controller for Ontario.

3. Comparative Analyses of Coals and other Solid Fuels for the years 1932, 1933 and 1934, compiled for the Dominion Department of Mines by Messrs. Nichols and Mower and published in 1935.

Enquiries (1) and (3) are general in character, while the second was definitely directed to the problem of Alberta coal and its sale in the Ontario market.

The first analysis (No. 1 above) grouped the 45 coal areas in the three geological horizons of Kootenay, Belly River and Edmonton, and then taking each of the areas, proceeded area by area to give analyses under the three headings of typical, maximum and minimum, with the calorific value (B.T.U. per lb.), moisture in air-dried coal, sulphur and fuel ratio in each case, together with coking properties and the number of samples examined. The samples analysed were taken by the Provincial Mine Inspectors; they were all handled by the same analyst, using standard methods, so that the results were strictly comparable, not only *inter se,* but with other reliable analyses. It is not possible to set out the analyses in any detail, but they showed, as would be anticipated, very considerable divergencies, for instance of calorific value, not only as between bituminous, sub-bituminous and domestic coals, but as between various areas and pits. The analyses gave calorific values, e.g. in the case of steam coal varying from 12,200 B.T.U. minimum to as high as 14,800 B.T.U. maximum; similarly the sub-bituminous varied from about 9,500 B.T.U. minimum to about 12,800 B.T.U. maximum; and the lignite or domestic coal from approximately 8,000 B.T.U. minimum to about 11,200 B.T.U. maximum.

2. The Commission presided over by Mr. Dinning examined a large number of pits and the coal produced by them, but in their Report did not give any data on which the conclusions in their Report had been framed. The Report was divided into two sections as follows:—

In the first section, in view of the fact that practically the whole of the shipments of Alberta domestic coal to Ontario in the then current season, April 15th to July 15th 1928, would have to be stored for use in the winter months, and having regard to the storage facilities then possessed by dealers in Ontario, the Report recommended for shipment coals from the Coalspur, Saunders and Lethbridge areas, and named some 15 mines as qualifying under this section.

In the second section, as a lower priced coal could be shipped in cases where storage was of less importance, the Report suggested for that purpose coals from

various areas, such as Taber, Drumheller, Pembina and Edmonton, and indicated some 28 mines by name as qualifying under this section.

The Report concluded that all the Companies listed had ample facilities for the adequate preparation of a clean screened coal; and as a last recommendation, the Board desired to endorse any move made by the Alberta operators to form a selling pool to handle shipments to Ontario in future years. This emphasis on a common selling pool to handle shipments to Ontario from Alberta, made no less than 7 years ago, is of importance.

Mr. J. A. Ellis, who was at that time Fuel Controller in Ontario, did all in his power to assist the work of the Commission, and to further the selling of Alberta coal in his area. In the *Ontario Gazette* for 28th April 1928, a definite description was published, printed with Mr. Ellis' name upon it, of Alberta coal under four areas or districts, namely.—

1. Coalspur and Saunders,
2. Lethbridge,
3. Taber and Drumheller,
4. Pembina and Edmonton;

and clear directions were included as to which classes were suitable for storage in closed sheds, which should be taken direct from railway cars to the consumer's own cellars, and so on: also how the coal should be used, and what grade of coal was most suitable for furnace use, adding that the Alberta coal required only about half the draft required for U.S. anthracite.

This attempt to define the character of the various classes of Alberta coal, which was intended to help both the operator and the consumer, appears to have met with criticism on the part of the coal industry, and to have failed to secure the object in view, namely the definition of standards which would secure acceptance both by the industry and by consumers.

3. The analyses in this case, having been conducted under the Dominion Department of Mines, naturally cover the coal areas of the whole of Canada, and not only those of Alberta. Short Analyses of Alberta coal are given on pp. 11-13, but cover a more limited area than those given in (1) above. Samples were taken representing only 6 mines throughout the Province, together with a sample from the Drumheller area; it is sufficient to say that the results arrived at—for instance with regard to calorific values—generally confirm, so far as they go, the results of the analyses given under (1) above.